Table 2

```
REMARK Written by O version 6.2.1
REMARK Thu Oct 19 16:44:44 2000
CRYST1  199.450   199.450   289.130   90.00    90.00    90.00
ORIGX1        1.000000  0.000000  0.000000      0.00000
ORIGX2        0.000000  1.000000  0.000000      0.00000
ORIGX3        0.000000  0.000000  1.000000      0.00000
SCALE1        0.005014  0.000000  0.000000      0.00000
SCALE2        0.000000  0.005014  0.000000      0.00000
SCALE3        0.000000  0.000000  0.003459      0.00000
ATOM      1  CB  ALA A   6      -0.674  65.559  73.225  1.00184.01      6
ATOM      2  C   ALA A   6      -1.081  63.492  71.882  1.00150.25      6
ATOM      3  O   ALA A   6      -1.961  62.636  71.787  1.00150.75      8
ATOM      4  N   ALA A   6      -2.906  65.120  72.256  1.00150.94      7
ATOM      5  CA  ALA A   6      -1.440  64.960  72.050  1.00150.69      6
ATOM      6  N   LYS A   7       0.220  63.209  71.866  1.00121.92      7
ATOM      7  CA  LYS A   7       0.729  61.855  71.667  1.00120.02      6
ATOM      8  CB  LYS A   7      -0.036  60.821  72.496  1.00156.94      6
ATOM      9  CG  LYS A   7       0.137  60.890  73.994  1.00157.98      6
ATOM     10  CD  LYS A   7      -0.665  59.764  74.624  1.00159.08      6
ATOM     11  CE  LYS A   7      -0.540  59.750  76.131  1.00160.31      6
ATOM     12  NZ  LYS A   7      -1.332  58.638  76.731  1.00161.74      7
ATOM     13  C   LYS A   7       0.489  61.553  70.201  1.00118.48      6
ATOM     14  O   LYS A   7       1.116  60.665  69.623  1.00118.87      8
ATOM     15  N   ALA A   8      -0.435  62.308  69.613  1.00 91.47      7
ATOM     16  CA  ALA A   8      -0.801  62.143  68.218  1.00 88.83      6
ATOM     17  CB  ALA A   8      -2.077  61.305  68.118  1.00 71.07      6
ATOM     18  C   ALA A   8      -1.005  63.487  67.524  1.00 86.40      6
ATOM     19  O   ALA A   8      -1.539  64.428  68.112  1.00 86.27      8
ATOM     20  N   PRO A   9      -0.549  63.597  66.267  1.00 53.91      7
ATOM     21  CD  PRO A   9       0.517  62.722  65.741  1.00 69.31      6
ATOM     22  CA  PRO A   9      -0.669  64.809  65.449  1.00 52.02      6
ATOM     23  CB  PRO A   9       0.674  64.864  64.756  1.00 68.44      6
ATOM     24  CG  PRO A   9       0.906  63.412  64.453  1.00 69.17      6
ATOM     25  C   PRO A   9      -1.824  64.699  64.450  1.00 49.71      6
ATOM     26  O   PRO A   9      -2.494  63.679  64.378  1.00 48.85      8
ATOM     27  N   VAL A  10      -2.040  65.746  63.670  1.00 56.71      7
ATOM     28  CA  VAL A  10      -3.117  65.753  62.692  1.00 55.46      6
ATOM     29  CB  VAL A  10      -4.120  66.872  63.012  1.00 55.12      6
ATOM     30  CG1 VAL A  10      -5.149  67.005  61.904  1.00 55.17      6
ATOM     31  CG2 VAL A  10      -4.795  66.581  64.335  1.00 54.29      6
ATOM     32  C   VAL A  10      -2.554  65.958  61.296  1.00 55.42      6
ATOM     33  O   VAL A  10      -2.573  67.064  60.756  1.00 55.98      8
ATOM     34  N   PHE A  11      -2.069  64.871  60.711  1.00 63.05      7
ATOM     35  CA  PHE A  11      -1.454  64.903  59.392  1.00 62.54      6
ATOM     36  CB  PHE A  11      -0.919  63.509  59.053  1.00119.96      6
ATOM     37  CG  PHE A  11      -0.075  63.460  57.809  1.00120.51      6
ATOM     38  CD1 PHE A  11       0.806  64.494  57.500  1.00120.57      6
ATOM     39  CD2 PHE A  11      -0.135  62.356  56.961  1.00121.37      6
ATOM     40  CE1 PHE A  11       1.616  64.428  56.366  1.00119.73      6
ATOM     41  CE2 PHE A  11       0.669  62.280  55.827  1.00120.93      6
ATOM     42  CZ  PHE A  11       1.547  63.318  55.527  1.00120.06      6
ATOM     43  C   PHE A  11      -2.340  65.419  58.266  1.00 62.10      6
ATOM     44  O   PHE A  11      -2.671  64.685  57.338  1.00 61.58      8
ATOM     45  N   THR A  12      -2.721  66.690  58.355  1.00 47.43      7
ATOM     46  CA  THR A  12      -3.533  67.338  57.328  1.00 47.79      6
ATOM     47  CB  THR A  12      -3.713  68.834  57.647  1.00108.24      6
```

```
ATOM     48  OG1 THR A  12      -4.382  68.979  58.909  1.00108.66      8
ATOM     49  CG2 THR A  12      -4.523  69.512  56.564  1.00109.46      6
ATOM     50  C   THR A  12      -2.752  67.169  56.021  1.00 47.46      6
ATOM     51  O   THR A  12      -1.552  66.897  56.058  1.00 47.91      8
ATOM     52  N   ALA A  13      -3.396  67.330  54.867  1.00 38.72      7
ATOM     53  CA  ALA A  13      -2.661  67.120  53.621  1.00 38.79      6
ATOM     54  CB  ALA A  13      -2.509  65.590  53.374  1.00 19.61      6
ATOM     55  C   ALA A  13      -3.163  67.803  52.350  1.00 38.10      6
ATOM     56  O   ALA A  13      -3.149  67.194  51.295  1.00 37.13      8
ATOM     57  N   THR A  14      -3.574  69.064  52.441  1.00 50.93      7
ATOM     58  CA  THR A  14      -4.061  69.814  51.268  1.00 51.96      6
ATOM     59  CB  THR A  14      -3.993  71.381  51.485  1.00 77.70      6
ATOM     60  OG1 THR A  14      -4.992  71.801  52.429  1.00 76.23      8
ATOM     61  CG2 THR A  14      -4.213  72.125  50.161  1.00 77.77      6
ATOM     62  C   THR A  14      -3.253  69.477  50.007  1.00 52.16      6
ATOM     63  O   THR A  14      -2.238  70.113  49.713  1.00 51.78      8
ATOM     64  N   THR A  15      -3.722  68.476  49.264  1.00 38.17      7
ATOM     65  CA  THR A  15      -3.062  68.038  48.042  1.00 39.18      6
ATOM     66  CB  THR A  15      -3.497  66.590  47.671  1.00 21.08      6
ATOM     67  OG1 THR A  15      -3.070  66.293  46.345  1.00 20.30      8
ATOM     68  CG2 THR A  15      -4.988  66.426  47.736  1.00 20.79      6
ATOM     69  C   THR A  15      -3.301  68.987  46.863  1.00 39.71      6
ATOM     70  O   THR A  15      -3.672  70.150  47.049  1.00 38.75      8
ATOM     71  N   GLN A  16      -3.060  68.477  45.659  1.00 87.11      7
ATOM     72  CA  GLN A  16      -3.224  69.223  44.415  1.00 90.16      6
ATOM     73  CB  GLN A  16      -2.064  70.199  44.226  1.00 98.47      6
ATOM     74  CG  GLN A  16      -2.428  71.637  44.527  1.00 98.74      6
ATOM     75  CD  GLN A  16      -3.310  72.240  43.459  1.00 98.04      6
ATOM     76  OE1 GLN A  16      -2.845  72.994  42.603  1.00 97.07      8
ATOM     77  NE2 GLN A  16      -4.591  71.900  43.494  1.00 98.68      7
ATOM     78  C   GLN A  16      -3.274  68.263  43.229  1.00 91.21      6
ATOM     79  O   GLN A  16      -3.465  67.059  43.400  1.00 91.96      8
ATOM     80  N   GLY A  17      -3.103  68.801  42.028  1.00109.33      7
ATOM     81  CA  GLY A  17      -3.130  67.966  40.843  1.00110.69      6
ATOM     82  C   GLY A  17      -1.741  67.744  40.276  1.00110.89      6
ATOM     83  O   GLY A  17      -1.408  68.262  39.208  1.00111.99      8
ATOM     84  N   ASP A  18      -0.930  66.964  40.982  1.00 49.15      7
ATOM     85  CA  ASP A  18       0.429  66.696  40.533  1.00 48.27      6
ATOM     86  CB  ASP A  18       0.425  66.081  39.121  1.00 95.31      6
ATOM     87  CG  ASP A  18       0.285  64.555  39.130  1.00 95.93      6
ATOM     88  OD1 ASP A  18       1.109  63.883  39.785  1.00 96.31      8
ATOM     89  OD2 ASP A  18      -0.639  64.026  38.474  1.00 95.54      8
ATOM     90  C   ASP A  18       1.228  68.004  40.539  1.00 46.85      6
ATOM     91  O   ASP A  18       1.470  68.615  39.496  1.00 46.35      8
ATOM     92  N   HIS A  19       1.604  68.418  41.747  1.00 95.41      7
ATOM     93  CA  HIS A  19       2.388  69.623  42.064  1.00 93.95      6
ATOM     94  CB  HIS A  19       2.406  70.663  40.916  1.00119.86      6
ATOM     95  CG  HIS A  19       1.071  71.252  40.570  1.00121.65      6
ATOM     96  CD2 HIS A  19       0.384  71.270  39.402  1.00121.92      6
ATOM     97  ND1 HIS A  19       0.319  71.982  41.465  1.00121.96      7
ATOM     98  CE1 HIS A  19      -0.772  72.424  40.864  1.00122.23      6
ATOM     99  NE2 HIS A  19      -0.756  72.005  39.611  1.00122.38      7
ATOM    100  C   HIS A  19       1.835  70.218  43.363  1.00 91.34      6
ATOM    101  O   HIS A  19       0.882  69.678  43.940  1.00 90.88      8
ATOM    102  N   TYR A  20       2.423  71.316  43.833  1.00 59.30      7
ATOM    103  CA  TYR A  20       2.001  71.911  45.101  1.00 56.72      6
```

2

```
ATOM    104  CB   TYR A  20       0.675  72.641  44.992  1.00 84.02      6
ATOM    105  CG   TYR A  20       0.845  74.124  44.855  1.00 86.19      6
ATOM    106  CD1  TYR A  20       0.937  74.719  43.593  1.00 86.75      6
ATOM    107  CE1  TYR A  20       1.114  76.095  43.451  1.00 87.24      6
ATOM    108  CD2  TYR A  20       0.936  74.940  45.982  1.00 87.02      6
ATOM    109  CE2  TYR A  20       1.115  76.321  45.852  1.00 87.64      6
ATOM    110  CZ   TYR A  20       1.203  76.889  44.581  1.00 87.77      6
ATOM    111  OH   TYR A  20       1.389  78.244  44.436  1.00 89.34      8
ATOM    112  C    TYR A  20       1.847  70.778  46.072  1.00 53.80      6
ATOM    113  O    TYR A  20       2.391  69.707  45.867  1.00 54.73      8
ATOM    114  N    GLY A  21       1.100  70.989  47.132  1.00 50.16      7
ATOM    115  CA   GLY A  21       0.950  69.902  48.069  1.00 47.19      6
ATOM    116  C    GLY A  21       1.471  70.248  49.442  1.00 44.51      6
ATOM    117  O    GLY A  21       2.361  69.590  49.973  1.00 44.32      8
ATOM    118  N    GLU A  22       0.924  71.314  50.005  1.00 39.88      7
ATOM    119  CA   GLU A  22       1.293  71.724  51.335  1.00 37.92      6
ATOM    120  CB   GLU A  22       0.488  72.965  51.716  1.00 62.99      6
ATOM    121  CG   GLU A  22       0.217  73.904  50.537  1.00 64.94      6
ATOM    122  CD   GLU A  22      -0.739  75.046  50.885  1.00 67.11      6
ATOM    123  OE1  GLU A  22      -1.688  74.806  51.671  1.00 67.85      8
ATOM    124  OE2  GLU A  22      -0.555  76.174  50.358  1.00 67.53      8
ATOM    125  C    GLU A  22       0.843  70.511  52.145  1.00 35.14      6
ATOM    126  O    GLU A  22      -0.221  69.953  51.886  1.00 35.06      8
ATOM    127  N    PHE A  23       1.648  70.072  53.098  1.00 45.71      7
ATOM    128  CA   PHE A  23       1.262  68.914  53.889  1.00 44.96      6
ATOM    129  CB   PHE A  23       2.104  67.698  53.494  1.00 29.76      6
ATOM    130  CG   PHE A  23       2.074  67.389  52.023  1.00 26.17      6
ATOM    131  CD1  PHE A  23       0.873  67.327  51.337  1.00 26.14      6
ATOM    132  CD2  PHE A  23       3.244  67.140  51.327  1.00 24.41      6
ATOM    133  CE1  PHE A  23       0.844  67.019  49.981  1.00 25.18      6
ATOM    134  CE2  PHE A  23       3.217  66.832  49.973  1.00 23.87      6
ATOM    135  CZ   PHE A  23       2.020  66.773  49.304  1.00 24.25      6
ATOM    136  C    PHE A  23       1.451  69.216  55.364  1.00 45.13      6
ATOM    137  O    PHE A  23       2.564  69.127  55.880  1.00 46.47      8
ATOM    138  N    VAL A  24       0.359  69.559  56.044  1.00 29.36      7
ATOM    139  CA   VAL A  24       0.421  69.908  57.457  1.00 28.70      6
ATOM    140  CB   VAL A  24      -0.710  70.840  57.891  1.00 26.37      6
ATOM    141  CG1  VAL A  24      -0.537  71.165  59.348  1.00 27.05      6
ATOM    142  CG2  VAL A  24      -0.716  72.115  57.074  1.00 26.62      6
ATOM    143  C    VAL A  24       0.351  68.751  58.414  1.00 28.27      6
ATOM    144  O    VAL A  24      -0.470  67.858  58.287  1.00 28.42      8
ATOM    145  N    LEU A  25       1.236  68.776  59.390  1.00 24.98      7
ATOM    146  CA   LEU A  25       1.223  67.767  60.413  1.00 25.10      6
ATOM    147  CB   LEU A  25       2.600  67.635  61.051  1.00 20.57      6
ATOM    148  CG   LEU A  25       2.998  66.180  61.263  1.00 20.16      6
ATOM    149  CD1  LEU A  25       3.158  65.901  62.743  1.00 18.63      6
ATOM    150  CD2  LEU A  25       1.941  65.264  60.635  1.00 19.90      6
ATOM    151  C    LEU A  25       0.266  68.510  61.315  1.00 26.87      6
ATOM    152  O    LEU A  25      -0.833  68.853  60.865  1.00 26.44      8
ATOM    153  N    GLU A  26       0.669  68.787  62.555  1.00116.39      7
ATOM    154  CA   GLU A  26      -0.183  69.547  63.467  1.00118.12      6
ATOM    155  CB   GLU A  26      -1.494  68.801  63.727  1.00 55.30      6
ATOM    156  CG   GLU A  26      -2.743  69.596  63.350  1.00 53.07      6
ATOM    157  CD   GLU A  26      -2.547  71.087  63.477  1.00 51.49      6
ATOM    158  OE1  GLU A  26      -2.151  71.538  64.566  1.00 49.62      8
ATOM    159  OE2  GLU A  26      -2.795  71.803  62.486  1.00 52.84      8
```

3

ATOM	160	C	GLU A	26	0.466	69.999	64.786	1.00120.58	6
ATOM	161	O	GLU A	26	1.435	70.758	64.754	1.00121.90	8
ATOM	162	N	PRO A	27	-0.027	69.541	65.959	1.00 79.42	7
ATOM	163	CD	PRO A	27	-0.943	68.451	66.354	1.00 84.24	6
ATOM	164	CA	PRO A	27	0.660	70.056	67.143	1.00 79.50	6
ATOM	165	CB	PRO A	27	-0.342	69.790	68.241	1.00 83.86	6
ATOM	166	CG	PRO A	27	-0.787	68.400	67.874	1.00 84.43	6
ATOM	167	C	PRO A	27	1.957	69.323	67.388	1.00 81.30	6
ATOM	168	O	PRO A	27	1.970	68.305	68.076	1.00 82.18	8
ATOM	169	N	LEU A	28	3.045	69.827	66.819	1.00 52.55	7
ATOM	170	CA	LEU A	28	4.337	69.190	67.014	1.00 53.38	6
ATOM	171	CB	LEU A	28	5.204	69.324	65.756	1.00 30.51	6
ATOM	172	CG	LEU A	28	5.135	68.133	64.788	1.00 29.10	6
ATOM	173	CD1	LEU A	28	5.692	68.542	63.433	1.00 27.98	6
ATOM	174	CD2	LEU A	28	5.892	66.924	65.380	1.00 28.36	6
ATOM	175	C	LEU A	28	5.014	69.835	68.203	1.00 55.09	6
ATOM	176	O	LEU A	28	4.938	71.047	68.383	1.00 54.89	8
ATOM	177	N	GLU A	29	5.652	69.011	69.028	1.00 95.04	7
ATOM	178	CA	GLU A	29	6.341	69.510	70.205	1.00 97.70	6
ATOM	179	CB	GLU A	29	7.201	68.411	70.835	1.00135.72	6
ATOM	180	CG	GLU A	29	6.414	67.210	71.331	1.00139.75	6
ATOM	181	CD	GLU A	29	7.248	66.273	72.187	1.00142.12	6
ATOM	182	OE1	GLU A	29	7.820	66.742	73.197	1.00144.19	8
ATOM	183	OE2	GLU A	29	7.324	65.067	71.860	1.00142.16	8
ATOM	184	C	GLU A	29	7.221	70.683	69.806	1.00 98.60	6
ATOM	185	O	GLU A	29	7.888	70.652	68.770	1.00 98.86	8
ATOM	186	N	ARG A	30	7.206	71.729	70.620	1.00 49.18	7
ATOM	187	CA	ARG A	30	8.021	72.900	70.349	1.00 48.17	6
ATOM	188	CB	ARG A	30	8.029	73.811	71.573	1.00135.75	6
ATOM	189	CG	ARG A	30	7.710	73.099	72.883	1.00138.35	6
ATOM	190	CD	ARG A	30	6.214	72.839	73.015	1.00140.35	6
ATOM	191	NE	ARG A	30	5.858	72.349	74.342	1.00141.60	7
ATOM	192	CZ	ARG A	30	4.676	72.544	74.917	1.00142.62	6
ATOM	193	NH1	ARG A	30	3.733	73.224	74.282	1.00143.40	7
ATOM	194	NH2	ARG A	30	4.434	72.060	76.128	1.00142.68	7
ATOM	195	C	ARG A	30	9.449	72.499	69.996	1.00 47.03	6
ATOM	196	O	ARG A	30	10.265	72.211	70.879	1.00 45.83	8
ATOM	197	N	GLY A	31	9.746	72.474	68.704	1.00 86.21	7
ATOM	198	CA	GLY A	31	11.082	72.113	68.289	1.00 85.50	6
ATOM	199	C	GLY A	31	11.183	71.239	67.060	1.00 84.90	6
ATOM	200	O	GLY A	31	11.913	71.569	66.127	1.00 85.07	8
ATOM	201	N	PHE A	32	10.459	70.123	67.051	1.00 67.60	7
ATOM	202	CA	PHE A	32	10.508	69.204	65.918	1.00 66.18	6
ATOM	203	CB	PHE A	32	9.686	67.948	66.221	1.00 37.90	6
ATOM	204	CG	PHE A	32	10.366	66.995	67.163	1.00 36.46	6
ATOM	205	CD1	PHE A	32	11.292	67.448	68.090	1.00 36.18	6
ATOM	206	CD2	PHE A	32	10.057	65.645	67.154	1.00 35.75	6
ATOM	207	CE1	PHE A	32	11.897	66.557	68.998	1.00 36.60	6
ATOM	208	CE2	PHE A	32	10.662	64.746	68.066	1.00 35.33	6
ATOM	209	CZ	PHE A	32	11.573	65.200	68.979	1.00 35.10	6
ATOM	210	C	PHE A	32	10.056	69.845	64.615	1.00 65.97	6
ATOM	211	O	PHE A	32	10.196	69.254	63.546	1.00 65.84	8
ATOM	212	N	GLY A	33	9.534	71.063	64.704	1.00 77.10	7
ATOM	213	CA	GLY A	33	9.097	71.751	63.507	1.00 75.91	6
ATOM	214	C	GLY A	33	10.094	71.568	62.376	1.00 75.60	6
ATOM	215	O	GLY A	33	9.720	71.510	61.206	1.00 76.44	8

4

ATOM	216	N	VAL	A	34	11.372	71.467	62.725	1.00	52.80	7
ATOM	217	CA	VAL	A	34	12.410	71.289	61.724	1.00	51.83	6
ATOM	218	CB	VAL	A	34	13.501	72.380	61.800	1.00	59.73	6
ATOM	219	CG1	VAL	A	34	12.909	73.749	61.479	1.00	60.67	6
ATOM	220	CG2	VAL	A	34	14.141	72.363	63.168	1.00	61.37	6
ATOM	221	C	VAL	A	34	13.097	69.951	61.856	1.00	50.63	6
ATOM	222	O	VAL	A	34	13.579	69.422	60.863	1.00	51.62	8
ATOM	223	N	THR	A	35	13.154	69.392	63.063	1.00	36.90	7
ATOM	224	CA	THR	A	35	13.819	68.095	63.226	1.00	35.09	6
ATOM	225	CB	THR	A	35	13.474	67.373	64.559	1.00	52.73	6
ATOM	226	OG1	THR	A	35	13.693	68.247	65.671	1.00	53.28	8
ATOM	227	CG2	THR	A	35	14.371	66.168	64.733	1.00	52.98	6
ATOM	228	C	THR	A	35	13.309	67.240	62.088	1.00	32.97	6
ATOM	229	O	THR	A	35	14.026	66.415	61.536	1.00	32.07	8
ATOM	230	N	LEU	A	36	12.056	67.471	61.728	1.00	20.88	7
ATOM	231	CA	LEU	A	36	11.432	66.739	60.649	1.00	21.18	6
ATOM	232	CB	LEU	A	36	10.009	66.343	61.051	1.00	39.45	6
ATOM	233	CG	LEU	A	36	9.755	65.996	62.526	1.00	39.89	6
ATOM	234	CD1	LEU	A	36	8.258	65.818	62.752	1.00	41.19	6
ATOM	235	CD2	LEU	A	36	10.515	64.740	62.926	1.00	39.22	6
ATOM	236	C	LEU	A	36	11.397	67.668	59.442	1.00	21.63	6
ATOM	237	O	LEU	A	36	11.850	67.319	58.357	1.00	20.73	8
ATOM	238	N	GLY	A	37	10.875	68.868	59.666	1.00	54.11	7
ATOM	239	CA	GLY	A	37	10.742	69.862	58.616	1.00	56.99	6
ATOM	240	C	GLY	A	37	11.866	70.059	57.615	1.00	58.77	6
ATOM	241	O	GLY	A	37	11.597	70.381	56.463	1.00	60.64	8
ATOM	242	N	ASN	A	38	13.118	69.880	58.019	1.00	43.74	7
ATOM	243	CA	ASN	A	38	14.211	70.089	57.080	1.00	42.89	6
ATOM	244	CB	ASN	A	38	15.385	70.783	57.777	1.00	40.56	6
ATOM	245	CG	ASN	A	38	16.115	71.759	56.864	1.00	39.64	6
ATOM	246	OD1	ASN	A	38	16.918	71.376	56.016	1.00	38.98	8
ATOM	247	ND2	ASN	A	38	15.820	73.033	57.032	1.00	40.13	7
ATOM	248	C	ASN	A	38	14.693	68.826	56.362	1.00	42.40	6
ATOM	249	O	ASN	A	38	14.521	68.720	55.145	1.00	41.83	8
ATOM	250	N	PRO	A	39	15.282	67.851	57.094	1.00	40.48	7
ATOM	251	CD	PRO	A	39	15.267	67.679	58.555	1.00	16.97	6
ATOM	252	CA	PRO	A	39	15.770	66.620	56.463	1.00	41.24	6
ATOM	253	CB	PRO	A	39	15.764	65.618	57.618	1.00	16.06	6
ATOM	254	CG	PRO	A	39	16.131	66.439	58.747	1.00	15.86	6
ATOM	255	C	PRO	A	39	14.901	66.170	55.286	1.00	42.78	6
ATOM	256	O	PRO	A	39	15.411	65.649	54.290	1.00	42.03	8
ATOM	257	N	LEU	A	40	13.589	66.375	55.408	1.00	77.92	7
ATOM	258	CA	LEU	A	40	12.657	66.004	54.351	1.00	79.48	6
ATOM	259	CB	LEU	A	40	11.207	66.157	54.825	1.00	44.82	6
ATOM	260	CG	LEU	A	40	10.797	65.405	56.093	1.00	45.44	6
ATOM	261	CD1	LEU	A	40	9.303	65.573	56.318	1.00	45.40	6
ATOM	262	CD2	LEU	A	40	11.155	63.930	55.977	1.00	45.49	6
ATOM	263	C	LEU	A	40	12.906	66.921	53.165	1.00	80.46	6
ATOM	264	O	LEU	A	40	13.203	66.466	52.057	1.00	80.99	8
ATOM	265	N	ARG	A	41	12.793	68.221	53.408	1.00	78.27	7
ATOM	266	CA	ARG	A	41	13.010	69.201	52.359	1.00	77.86	6
ATOM	267	CB	ARG	A	41	12.950	70.615	52.948	1.00	71.76	6
ATOM	268	CG	ARG	A	41	12.558	71.705	51.953	1.00	73.75	6
ATOM	269	CD	ARG	A	41	13.741	72.275	51.194	1.00	74.31	6
ATOM	270	NE	ARG	A	41	14.589	73.075	52.066	1.00	76.34	7
ATOM	271	CZ	ARG	A	41	15.454	72.579	52.945	1.00	79.31	6

```
ATOM    272  NH1 ARG A  41      15.606  71.270  53.079  1.00  80.51      7
ATOM    273  NH2 ARG A  41      16.164  73.396  53.708  1.00  79.89      7
ATOM    274  C   ARG A  41      14.376  68.910  51.748  1.00  76.52      6
ATOM    275  O   ARG A  41      14.559  68.987  50.534  1.00  76.69      8
ATOM    276  N   ARG A  42      15.333  68.559  52.598  1.00  55.69      7
ATOM    277  CA  ARG A  42      16.665  68.228  52.117  1.00  54.23      6
ATOM    278  CB  ARG A  42      17.559  67.759  53.266  1.00  43.27      6
ATOM    279  CG  ARG A  42      17.965  68.846  54.226  1.00  43.46      6
ATOM    280  CD  ARG A  42      19.175  69.576  53.713  1.00  42.80      6
ATOM    281  NE  ARG A  42      20.400  68.918  54.144  1.00  41.66      7
ATOM    282  CZ  ARG A  42      21.593  69.162  53.617  1.00  41.52      6
ATOM    283  NH1 ARG A  42      21.714  70.050  52.635  1.00  40.62      7
ATOM    284  NH2 ARG A  42      22.663  68.522  54.074  1.00  40.40      7
ATOM    285  C   ARG A  42      16.490  67.094  51.127  1.00  52.39      6
ATOM    286  O   ARG A  42      16.635  67.289  49.921  1.00  52.13      8
ATOM    287  N   ILE A  43      16.150  65.914  51.650  1.00  28.41      7
ATOM    288  CA  ILE A  43      15.961  64.731  50.827  1.00  25.56      6
ATOM    289  CB  ILE A  43      15.265  63.585  51.616  1.00  20.13      6
ATOM    290  CG2 ILE A  43      15.289  62.291  50.806  1.00  18.45      6
ATOM    291  CG1 ILE A  43      16.002  63.313  52.926  1.00  19.25      6
ATOM    292  CD1 ILE A  43      17.358  62.780  52.730  1.00  20.64      6
ATOM    293  C   ILE A  43      15.122  65.096  49.611  1.00  24.61      6
ATOM    294  O   ILE A  43      15.596  64.997  48.483  1.00  23.15      8
ATOM    295  N   LEU A  44      13.891  65.538  49.834  1.00  60.43      7
ATOM    296  CA  LEU A  44      13.022  65.900  48.721  1.00  62.04      6
ATOM    297  CB  LEU A  44      11.928  66.843  49.205  1.00  32.70      6
ATOM    298  CG  LEU A  44      10.914  66.119  50.078  1.00  31.74      6
ATOM    299  CD1 LEU A  44      10.156  67.122  50.898  1.00  32.66      6
ATOM    300  CD2 LEU A  44       9.969  65.310  49.219  1.00  31.99      6
ATOM    301  C   LEU A  44      13.770  66.526  47.539  1.00  62.79      6
ATOM    302  O   LEU A  44      13.569  66.130  46.387  1.00  63.37      8
ATOM    303  N   LEU A  45      14.645  67.487  47.828  1.00  54.74      7
ATOM    304  CA  LEU A  45      15.411  68.169  46.789  1.00  52.16      6
ATOM    305  CB  LEU A  45      16.062  69.423  47.363  1.00  13.87      6
ATOM    306  CG  LEU A  45      15.152  70.604  47.623  1.00  13.87      6
ATOM    307  CD1 LEU A  45      15.843  71.586  48.516  1.00  13.87      6
ATOM    308  CD2 LEU A  45      14.792  71.238  46.320  1.00  13.87      6
ATOM    309  C   LEU A  45      16.494  67.306  46.167  1.00  52.20      6
ATOM    310  O   LEU A  45      16.788  67.441  44.980  1.00  51.60      8
ATOM    311  N   SER A  46      17.074  66.423  46.977  1.00  47.04      7
ATOM    312  CA  SER A  46      18.169  65.550  46.556  1.00  47.85      6
ATOM    313  CB  SER A  46      19.098  65.282  47.734  1.00  62.29      6
ATOM    314  OG  SER A  46      19.440  66.478  48.399  1.00  64.36      8
ATOM    315  C   SER A  46      17.793  64.207  45.965  1.00  47.22      6
ATOM    316  O   SER A  46      17.335  64.098  44.833  1.00  47.52      8
ATOM    317  N   SER A  47      18.015  63.171  46.754  1.00  19.54      7
ATOM    318  CA  SER A  47      17.740  61.819  46.314  1.00  20.83      6
ATOM    319  CB  SER A  47      18.339  60.840  47.330  1.00  47.90      6
ATOM    320  OG  SER A  47      19.636  61.245  47.740  1.00  48.74      8
ATOM    321  C   SER A  47      16.240  61.523  46.111  1.00  20.87      6
ATOM    322  O   SER A  47      15.415  61.785  46.986  1.00  21.06      8
ATOM    323  N   ILE A  48      15.900  60.977  44.953  1.00  46.59      7
ATOM    324  CA  ILE A  48      14.528  60.621  44.624  1.00  48.06      6
ATOM    325  CB  ILE A  48      13.512  61.749  44.878  1.00  13.87      6
ATOM    326  CG2 ILE A  48      12.415  61.715  43.809  1.00  13.87      6
ATOM    327  CG1 ILE A  48      12.859  61.582  46.244  1.00  13.87      6
```

6

```
ATOM    328  CD1 ILE A   48      11.777  62.610  46.523  1.00 13.87       6
ATOM    329  C   ILE A   48      14.472  60.333  43.151  1.00 50.88       6
ATOM    330  O   ILE A   48      14.926  61.135  42.337  1.00 52.63       8
ATOM    331  N   PRO A   49      13.902  59.185  42.783  1.00 39.58       7
ATOM    332  CD  PRO A   49      13.394  58.110  43.655  1.00145.29       6
ATOM    333  CA  PRO A   49      13.797  58.814  41.377  1.00 39.89       6
ATOM    334  CB  PRO A   49      12.979  57.525  41.428  1.00145.15       6
ATOM    335  CG  PRO A   49      13.408  56.916  42.729  1.00146.08       6
ATOM    336  C   PRO A   49      13.122  59.903  40.544  1.00 40.28       6
ATOM    337  O   PRO A   49      12.250  60.639  41.028  1.00 39.98       8
ATOM    338  N   GLY A   50      13.547  59.985  39.286  1.00 41.27       7
ATOM    339  CA  GLY A   50      13.005  60.947  38.349  1.00 40.92       6
ATOM    340  C   GLY A   50      13.190  60.493  36.911  1.00 39.90       6
ATOM    341  O   GLY A   50      13.762  59.439  36.615  1.00 38.85       8
ATOM    342  N   THR A   51      12.704  61.315  36.001  1.00 41.55       7
ATOM    343  CA  THR A   51      12.794  61.010  34.593  1.00 42.82       6
ATOM    344  CB  THR A   51      11.383  60.828  33.998  1.00 61.58       6
ATOM    345  OG1 THR A   51      10.709  62.095  33.965  1.00 63.80       8
ATOM    346  CG2 THR A   51      10.569  59.864  34.849  1.00 62.73       6
ATOM    347  C   THR A   51      13.482  62.176  33.890  1.00 41.48       6
ATOM    348  O   THR A   51      13.023  63.323  33.985  1.00 40.65       8
ATOM    349  N   ALA A   52      14.584  61.893  33.194  1.00 29.66       7
ATOM    350  CA  ALA A   52      15.298  62.941  32.469  1.00 30.42       6
ATOM    351  CB  ALA A   52      16.441  63.462  33.312  1.00 77.76       6
ATOM    352  C   ALA A   52      15.823  62.519  31.106  1.00 29.19       6
ATOM    353  O   ALA A   52      16.153  61.364  30.883  1.00 27.97       8
ATOM    354  N   VAL A   53      15.887  63.478  30.195  1.00 33.16       7
ATOM    355  CA  VAL A   53      16.400  63.247  28.849  1.00 33.88       6
ATOM    356  CB  VAL A   53      16.381  64.569  28.066  1.00 31.89       6
ATOM    357  CG1 VAL A   53      16.599  64.340  26.574  1.00 31.71       6
ATOM    358  CG2 VAL A   53      15.084  65.270  28.335  1.00 31.88       6
ATOM    359  C   VAL A   53      17.856  62.776  28.970  1.00 34.18       6
ATOM    360  O   VAL A   53      18.671  63.447  29.595  1.00 34.70       8
ATOM    361  N   THR A   54      18.212  61.645  28.382  1.00 53.17       7
ATOM    362  CA  THR A   54      19.596  61.222  28.518  1.00 55.64       6
ATOM    363  CB  THR A   54      19.689  59.742  28.906  1.00 54.68       6
ATOM    364  OG1 THR A   54      19.168  59.570  30.227  1.00 55.11       8
ATOM    365  CG2 THR A   54      21.141  59.269  28.885  1.00 55.71       6
ATOM    366  C   THR A   54      20.464  61.470  27.294  1.00 56.10       6
ATOM    367  O   THR A   54      21.642  61.817  27.437  1.00 56.71       8
ATOM    368  N   SER A   55      19.881  61.302  26.102  1.00 42.59       7
ATOM    369  CA  SER A   55      20.595  61.492  24.830  1.00 43.27       6
ATOM    370  CB  SER A   55      21.444  60.253  24.536  1.00 30.83       6
ATOM    371  OG  SER A   55      22.262  60.453  23.409  1.00 31.95       8
ATOM    372  C   SER A   55      19.624  61.754  23.669  1.00 42.60       6
ATOM    373  O   SER A   55      18.516  61.222  23.641  1.00 41.99       8
ATOM    374  N   VAL A   56      20.042  62.567  22.707  1.00 49.56       7
ATOM    375  CA  VAL A   56      19.167  62.893  21.585  1.00 51.39       6
ATOM    376  CB  VAL A   56      18.463  64.291  21.818  1.00 18.02       6
ATOM    377  CG1 VAL A   56      18.759  64.775  23.223  1.00 17.77       6
ATOM    378  CG2 VAL A   56      18.899  65.343  20.784  1.00 15.68       6
ATOM    379  C   VAL A   56      19.843  62.892  20.219  1.00 52.77       6
ATOM    380  O   VAL A   56      20.836  63.586  20.009  1.00 53.75       8
ATOM    381  N   TYR A   57      19.306  62.103  19.292  1.00 49.16       7
ATOM    382  CA  TYR A   57      19.842  62.065  17.935  1.00 50.62       6
ATOM    383  CB  TYR A   57      19.973  60.627  17.431  1.00 56.89       6
```

```
ATOM    384  CG   TYR A  57      20.071  60.507  15.908  1.00 55.88      6
ATOM    385  CD1  TYR A  57      21.230  60.024  15.295  1.00 55.45      6
ATOM    386  CE1  TYR A  57      21.305  59.879  13.911  1.00 54.69      6
ATOM    387  CD2  TYR A  57      18.991  60.848  15.084  1.00 55.26      6
ATOM    388  CE2  TYR A  57      19.061  60.710  13.710  1.00 54.91      6
ATOM    389  CZ   TYR A  57      20.216  60.222  13.130  1.00 54.94      6
ATOM    390  OH   TYR A  57      20.270  60.047  11.770  1.00 55.85      8
ATOM    391  C    TYR A  57      18.933  62.836  16.977  1.00 51.34      6
ATOM    392  O    TYR A  57      17.713  62.680  16.997  1.00 51.30      8
ATOM    393  N    ILE A  58      19.529  63.651  16.120  1.00 48.33      7
ATOM    394  CA   ILE A  58      18.738  64.390  15.160  1.00 50.45      6
ATOM    395  CB   ILE A  58      18.904  65.906  15.341  1.00 43.10      6
ATOM    396  CG2  ILE A  58      18.130  66.651  14.254  1.00 42.04      6
ATOM    397  CG1  ILE A  58      18.379  66.317  16.712  1.00 42.84      6
ATOM    398  CD1  ILE A  58      18.051  67.801  16.816  1.00 44.49      6
ATOM    399  C    ILE A  58      19.107  63.991  13.733  1.00 51.73      6
ATOM    400  O    ILE A  58      20.239  63.590  13.457  1.00 50.59      8
ATOM    401  N    GLU A  59      18.127  64.110  12.841  1.00 92.68      7
ATOM    402  CA   GLU A  59      18.267  63.761  11.430  1.00 95.41      6
ATOM    403  CB   GLU A  59      17.209  64.501  10.598  1.00103.73      6
ATOM    404  CG   GLU A  59      17.103  64.033   9.140  1.00105.12      6
ATOM    405  CD   GLU A  59      16.435  62.663   8.974  1.00106.04      6
ATOM    406  OE1  GLU A  59      16.917  61.675   9.571  1.00106.23      8
ATOM    407  OE2  GLU A  59      15.429  62.569   8.234  1.00106.36      8
ATOM    408  C    GLU A  59      19.646  64.019  10.836  1.00 95.22      6
ATOM    409  O    GLU A  59      20.574  63.238  11.038  1.00 95.27      8
ATOM    410  N    ASP A  60      19.776  65.119  10.104  1.00 54.07      7
ATOM    411  CA   ASP A  60      21.039  65.455   9.451  1.00 54.95      6
ATOM    412  CB   ASP A  60      20.755  66.216   8.148  1.00121.45      6
ATOM    413  CG   ASP A  60      19.988  65.380   7.130  1.00123.20      6
ATOM    414  OD1  ASP A  60      20.519  64.343   6.672  1.00124.19      8
ATOM    415  OD2  ASP A  60      18.851  65.760   6.778  1.00123.59      8
ATOM    416  C    ASP A  60      22.016  66.261  10.311  1.00 54.33      6
ATOM    417  O    ASP A  60      22.484  67.321   9.896  1.00 54.17      8
ATOM    418  N    VAL A  61      22.351  65.757  11.496  1.00 54.31      7
ATOM    419  CA   VAL A  61      23.268  66.491  12.363  1.00 55.07      6
ATOM    420  CB   VAL A  61      22.507  67.192  13.511  1.00 62.32      6
ATOM    421  CG1  VAL A  61      23.498  67.801  14.504  1.00 62.29      6
ATOM    422  CG2  VAL A  61      21.600  68.275  12.939  1.00 62.30      6
ATOM    423  C    VAL A  61      24.389  65.663  12.970  1.00 54.97      6
ATOM    424  O    VAL A  61      24.152  64.798  13.808  1.00 54.94      8
ATOM    425  N    LEU A  62      25.614  65.965  12.552  1.00 73.57      7
ATOM    426  CA   LEU A  62      26.790  65.274  13.040  1.00 74.33      6
ATOM    427  CB   LEU A  62      28.035  65.900  12.438  1.00 68.22      6
ATOM    428  CG   LEU A  62      28.478  65.236  11.138  1.00 68.33      6
ATOM    429  CD1  LEU A  62      29.514  66.087  10.432  1.00 68.18      6
ATOM    430  CD2  LEU A  62      29.033  63.854  11.463  1.00 68.59      6
ATOM    431  C    LEU A  62      26.891  65.266  14.554  1.00 74.75      6
ATOM    432  O    LEU A  62      26.801  64.211  15.162  1.00 75.89      8
ATOM    433  N    HIS A  63      27.095  66.430  15.162  1.00 68.14      7
ATOM    434  CA   HIS A  63      27.188  66.533  16.622  1.00 68.73      6
ATOM    435  CB   HIS A  63      28.612  66.247  17.112  1.00109.32      6
ATOM    436  CG   HIS A  63      28.817  64.842  17.598  1.00111.08      6
ATOM    437  CD2  HIS A  63      28.015  63.753  17.545  1.00111.66      6
ATOM    438  ND1  HIS A  63      29.970  64.436  18.234  1.00112.16      7
ATOM    439  CE1  HIS A  63      29.868  63.157  18.552  1.00112.77      6
```

8

```
ATOM    440  NE2 HIS A  63      28.692  62.719  18.144  1.00112.76      7
ATOM    441  C   HIS A  63      26.760  67.921  17.067  1.00 67.23      6
ATOM    442  O   HIS A  63      26.497  68.774  16.225  1.00 67.52      8
ATOM    443  N   GLU A  64      26.687  68.145  18.380  1.00 95.10      7
ATOM    444  CA  GLU A  64      26.269  69.438  18.922  1.00 93.64      6
ATOM    445  CB  GLU A  64      26.480  69.480  20.439  1.00 79.44      6
ATOM    446  CG  GLU A  64      25.731  70.615  21.143  1.00 80.88      6
ATOM    447  CD  GLU A  64      25.248  70.242  22.554  1.00 81.25      6
ATOM    448  OE1 GLU A  64      25.604  69.147  23.047  1.00 81.28      8
ATOM    449  OE2 GLU A  64      24.508  71.045  23.174  1.00 81.64      8
ATOM    450  C   GLU A  64      27.054  70.548  18.240  1.00 91.41      6
ATOM    451  O   GLU A  64      28.046  70.278  17.562  1.00 92.49      8
ATOM    452  N   PHE A  65      26.617  71.791  18.420  1.00 22.51      7
ATOM    453  CA  PHE A  65      27.266  72.948  17.782  1.00 20.38      6
ATOM    454  CB  PHE A  65      28.801  72.924  17.954  1.00 28.12      6
ATOM    455  CG  PHE A  65      29.236  72.710  19.363  1.00 24.54      6
ATOM    456  CD1 PHE A  65      29.535  71.434  19.827  1.00 22.93      6
ATOM    457  CD2 PHE A  65      29.224  73.757  20.267  1.00 23.17      6
ATOM    458  CE1 PHE A  65      29.804  71.197  21.170  1.00 21.54      6
ATOM    459  CE2 PHE A  65      29.489  73.530  21.616  1.00 21.40      6
ATOM    460  CZ  PHE A  65      29.777  72.247  22.062  1.00 20.54      6
ATOM    461  C   PHE A  65      26.924  72.930  16.294  1.00 19.54      6
ATOM    462  O   PHE A  65      27.787  73.189  15.447  1.00 17.93      8
ATOM    463  N   SER A  66      25.660  72.621  15.990  1.00107.08      7
ATOM    464  CA  SER A  66      25.167  72.543  14.614  1.00108.68      6
ATOM    465  CB  SER A  66      24.507  71.186  14.365  1.00131.29      6
ATOM    466  OG  SER A  66      25.451  70.136  14.446  1.00132.76      8
ATOM    467  C   SER A  66      24.184  73.648  14.239  1.00107.83      6
ATOM    468  O   SER A  66      24.159  74.706  14.859  1.00109.21      8
ATOM    469  N   THR A  67      23.368  73.384  13.223  1.00 37.78      7
ATOM    470  CA  THR A  67      22.399  74.358  12.731  1.00 37.55      6
ATOM    471  CB  THR A  67      23.084  75.605  12.161  1.00 38.25      6
ATOM    472  OG1 THR A  67      22.154  76.305  11.322  1.00 36.51      8
ATOM    473  CG2 THR A  67      24.319  75.214  11.337  1.00 36.90      6
ATOM    474  C   THR A  67      21.540  73.785  11.614  1.00 37.84      6
ATOM    475  O   THR A  67      21.777  74.052  10.435  1.00 38.15      8
ATOM    476  N   ILE A  68      20.535  73.011  12.005  1.00 72.99      7
ATOM    477  CA  ILE A  68      19.602  72.365  11.088  1.00 74.27      6
ATOM    478  CB  ILE A  68      18.499  71.679  11.878  1.00 43.22      6
ATOM    479  CG2 ILE A  68      17.632  70.891  10.946  1.00 43.12      6
ATOM    480  CG1 ILE A  68      19.109  70.788  12.957  1.00 42.80      6
ATOM    481  CD1 ILE A  68      18.125  70.363  14.024  1.00 42.11      6
ATOM    482  C   ILE A  68      18.915  73.306  10.093  1.00 74.17      6
ATOM    483  O   ILE A  68      17.998  74.036  10.470  1.00 75.51      8
ATOM    484  N   PRO A  69      19.335  73.293   8.808  1.00 47.83      7
ATOM    485  CD  PRO A  69      20.552  72.652   8.266  1.00 30.92      6
ATOM    486  CA  PRO A  69      18.723  74.161   7.790  1.00 48.16      6
ATOM    487  CB  PRO A  69      19.365  73.676   6.497  1.00 30.11      6
ATOM    488  CG  PRO A  69      20.781  73.419   6.965  1.00 30.52      6
ATOM    489  C   PRO A  69      17.204  74.102   7.739  1.00 46.97      6
ATOM    490  O   PRO A  69      16.616  73.020   7.661  1.00 46.45      8
ATOM    491  N   GLY A  70      16.586  75.283   7.799  1.00 82.64      7
ATOM    492  CA  GLY A  70      15.138  75.393   7.753  1.00 83.42      6
ATOM    493  C   GLY A  70      14.471  75.570   9.106  1.00 83.11      6
ATOM    494  O   GLY A  70      13.249  75.722   9.188  1.00 83.49      8
ATOM    495  N   VAL A  71      15.266  75.548  10.170  1.00 25.92      7
```

9

ATOM	496	CA	VAL	A	71	14.738	75.700	11.519	1.00	25.88	6
ATOM	497	CB	VAL	A	71	15.182	74.528	12.462	1.00	69.23	6
ATOM	498	CG1	VAL	A	71	14.438	74.612	13.787	1.00	69.55	6
ATOM	499	CG2	VAL	A	71	14.923	73.176	11.811	1.00	69.40	6
ATOM	500	C	VAL	A	71	15.254	76.995	12.109	1.00	24.57	6
ATOM	501	O	VAL	A	71	16.385	77.396	11.857	1.00	23.69	8
ATOM	502	N	LYS	A	72	14.422	77.642	12.910	1.00	61.33	7
ATOM	503	CA	LYS	A	72	14.794	78.891	13.559	1.00	61.86	6
ATOM	504	CB	LYS	A	72	13.567	79.514	14.227	1.00	80.38	6
ATOM	505	CG	LYS	A	72	13.835	80.872	14.830	1.00	81.39	6
ATOM	506	CD	LYS	A	72	12.590	81.460	15.447	1.00	82.45	6
ATOM	507	CE	LYS	A	72	12.867	82.860	15.951	1.00	83.55	6
ATOM	508	NZ	LYS	A	72	11.769	83.344	16.827	1.00	85.83	7
ATOM	509	C	LYS	A	72	15.885	78.689	14.601	1.00	61.01	6
ATOM	510	O	LYS	A	72	16.965	79.264	14.503	1.00	60.86	8
ATOM	511	N	GLU	A	73	15.580	77.860	15.593	1.00	37.71	7
ATOM	512	CA	GLU	A	73	16.475	77.557	16.702	1.00	38.31	6
ATOM	513	CB	GLU	A	73	15.911	76.368	17.489	1.00	60.62	6
ATOM	514	CG	GLU	A	73	14.399	76.363	17.551	1.00	63.75	6
ATOM	515	CD	GLU	A	73	13.844	77.717	17.925	1.00	65.67	6
ATOM	516	OE1	GLU	A	73	13.822	78.040	19.130	1.00	66.19	8
ATOM	517	OE2	GLU	A	73	13.444	78.467	17.009	1.00	67.76	8
ATOM	518	C	GLU	A	73	17.945	77.287	16.367	1.00	37.99	6
ATOM	519	O	GLU	A	73	18.520	77.864	15.445	1.00	38.72	8
ATOM	520	N	ASP	A	74	18.534	76.388	17.151	1.00	82.96	7
ATOM	521	CA	ASP	A	74	19.935	75.994	17.037	1.00	81.66	6
ATOM	522	CB	ASP	A	74	20.808	77.116	17.581	1.00	54.13	6
ATOM	523	CG	ASP	A	74	22.192	76.656	17.930	1.00	52.60	6
ATOM	524	OD1	ASP	A	74	22.333	75.533	18.467	1.00	50.96	8
ATOM	525	OD2	ASP	A	74	23.137	77.433	17.683	1.00	52.36	8
ATOM	526	C	ASP	A	74	20.085	74.747	17.903	1.00	80.79	6
ATOM	527	O	ASP	A	74	19.780	74.783	19.090	1.00	81.18	8
ATOM	528	N	VAL	A	75	20.584	73.661	17.326	1.00	40.61	7
ATOM	529	CA	VAL	A	75	20.710	72.400	18.055	1.00	38.44	6
ATOM	530	CB	VAL	A	75	21.747	71.469	17.412	1.00	21.23	6
ATOM	531	CG1	VAL	A	75	21.643	70.059	18.019	1.00	17.92	6
ATOM	532	CG2	VAL	A	75	21.539	71.446	15.904	1.00	20.66	6
ATOM	533	C	VAL	A	75	21.040	72.538	19.530	1.00	38.36	6
ATOM	534	O	VAL	A	75	20.438	71.853	20.362	1.00	38.29	8
ATOM	535	N	VAL	A	76	21.987	73.411	19.864	1.00	74.82	7
ATOM	536	CA	VAL	A	76	22.347	73.584	21.267	1.00	75.22	6
ATOM	537	CB	VAL	A	76	23.393	74.690	21.484	1.00	34.21	6
ATOM	538	CG1	VAL	A	76	23.993	74.554	22.876	1.00	34.49	6
ATOM	539	CG2	VAL	A	76	24.480	74.592	20.448	1.00	34.06	6
ATOM	540	C	VAL	A	76	21.067	73.977	21.967	1.00	76.36	6
ATOM	541	O	VAL	A	76	20.603	73.271	22.866	1.00	76.45	8
ATOM	542	N	GLU	A	77	20.494	75.098	21.534	1.00	77.76	7
ATOM	543	CA	GLU	A	77	19.235	75.587	22.082	1.00	76.31	6
ATOM	544	CB	GLU	A	77	18.611	76.604	21.133	1.00	63.33	6
ATOM	545	CG	GLU	A	77	18.347	77.953	21.750	1.00	64.17	6
ATOM	546	CD	GLU	A	77	17.173	78.659	21.102	1.00	64.78	6
ATOM	547	OE1	GLU	A	77	16.026	78.202	21.309	1.00	64.71	8
ATOM	548	OE2	GLU	A	77	17.394	79.660	20.387	1.00	65.41	8
ATOM	549	C	GLU	A	77	18.295	74.393	22.206	1.00	75.12	6
ATOM	550	O	GLU	A	77	17.823	74.062	23.293	1.00	75.46	8
ATOM	551	N	ILE	A	78	18.038	73.755	21.066	1.00	32.87	7

```
ATOM    552  CA   ILE A  78      17.176  72.583  20.982  1.00 30.59      6
ATOM    553  CB   ILE A  78      17.406  71.828  19.661  1.00 32.78      6
ATOM    554  CG2  ILE A  78      16.570  70.569  19.627  1.00 31.04      6
ATOM    555  CG1  ILE A  78      17.049  72.743  18.482  1.00 33.50      6
ATOM    556  CD1  ILE A  78      17.468  72.214  17.114  1.00 34.08      6
ATOM    557  C    ILE A  78      17.462  71.645  22.136  1.00 30.32      6
ATOM    558  O    ILE A  78      16.544  71.190  22.818  1.00 29.37      8
ATOM    559  N    ILE A  79      18.737  71.361  22.362  1.00 37.89      7
ATOM    560  CA   ILE A  79      19.094  70.471  23.441  1.00 39.91      6
ATOM    561  CB   ILE A  79      20.512  69.954  23.281  1.00 45.66      6
ATOM    562  CG2  ILE A  79      20.957  69.240  24.534  1.00 45.36      6
ATOM    563  CG1  ILE A  79      20.561  68.981  22.113  1.00 46.47      6
ATOM    564  CD1  ILE A  79      21.890  68.301  21.967  1.00 48.56      6
ATOM    565  C    ILE A  79      18.951  71.160  24.784  1.00 41.42      6
ATOM    566  O    ILE A  79      18.754  70.499  25.810  1.00 42.07      8
ATOM    567  N    LEU A  80      19.050  72.488  24.786  1.00 89.16      7
ATOM    568  CA   LEU A  80      18.912  73.250  26.023  1.00 89.46      6
ATOM    569  CB   LEU A  80      19.462  74.678  25.856  1.00 35.09      6
ATOM    570  CG   LEU A  80      20.982  74.838  26.063  1.00 34.34      6
ATOM    571  CD1  LEU A  80      21.423  76.281  25.845  1.00 34.07      6
ATOM    572  CD2  LEU A  80      21.331  74.392  27.482  1.00 33.85      6
ATOM    573  C    LEU A  80      17.447  73.279  26.425  1.00 89.37      6
ATOM    574  O    LEU A  80      17.120  73.370  27.609  1.00 90.96      8
ATOM    575  N    ASN A  81      16.569  73.189  25.428  1.00 41.89      7
ATOM    576  CA   ASN A  81      15.134  73.170  25.674  1.00 41.74      6
ATOM    577  CB   ASN A  81      14.362  73.564  24.412  1.00 69.15      6
ATOM    578  CG   ASN A  81      14.578  75.019  24.024  1.00 70.45      6
ATOM    579  OD1  ASN A  81      15.661  75.406  23.595  1.00 70.24      8
ATOM    580  ND2  ASN A  81      13.542  75.833  24.180  1.00 71.82      7
ATOM    581  C    ASN A  81      14.731  71.766  26.125  1.00 40.96      6
ATOM    582  O    ASN A  81      14.149  71.601  27.200  1.00 40.05      8
ATOM    583  N    LEU A  82      15.053  70.755  25.316  1.00 63.42      7
ATOM    584  CA   LEU A  82      14.724  69.372  25.667  1.00 64.05      6
ATOM    585  CB   LEU A  82      15.370  68.366  24.700  1.00 58.81      6
ATOM    586  CG   LEU A  82      14.932  68.301  23.231  1.00 59.30      6
ATOM    587  CD1  LEU A  82      15.628  67.112  22.568  1.00 58.70      6
ATOM    588  CD2  LEU A  82      13.411  68.159  23.123  1.00 59.58      6
ATOM    589  C    LEU A  82      15.200  69.062  27.074  1.00 64.25      6
ATOM    590  O    LEU A  82      14.629  68.233  27.766  1.00 64.54      8
ATOM    591  N    LYS A  83      16.255  69.730  27.504  1.00 93.29      7
ATOM    592  CA   LYS A  83      16.771  69.490  28.835  1.00 95.39      6
ATOM    593  CB   LYS A  83      17.951  70.441  29.100  1.00 57.62      6
ATOM    594  CG   LYS A  83      18.613  70.272  30.464  1.00 58.61      6
ATOM    595  CD   LYS A  83      19.963  70.983  30.554  1.00 58.45      6
ATOM    596  CE   LYS A  83      21.016  70.259  29.735  1.00 58.82      6
ATOM    597  NZ   LYS A  83      22.365  70.853  29.907  1.00 57.41      7
ATOM    598  C    LYS A  83      15.651  69.675  29.871  1.00 96.28      6
ATOM    599  O    LYS A  83      15.738  69.164  30.990  1.00 97.41      8
ATOM    600  N    GLU A  84      14.583  70.368  29.472  1.00 83.14      7
ATOM    601  CA   GLU A  84      13.446  70.653  30.354  1.00 83.07      6
ATOM    602  CB   GLU A  84      13.032  72.108  30.185  1.00 62.64      6
ATOM    603  CG   GLU A  84      14.028  73.098  30.716  1.00 63.41      6
ATOM    604  CD   GLU A  84      13.747  74.495  30.214  1.00 65.27      6
ATOM    605  OE1  GLU A  84      12.552  74.877  30.155  1.00 66.33      8
ATOM    606  OE2  GLU A  84      14.719  75.216  29.883  1.00 66.86      8
ATOM    607  C    GLU A  84      12.200  69.779  30.191  1.00 82.17      6
```

11

```
ATOM    608  O   GLU A  84      11.248  69.902  30.957  1.00  82.78      8
ATOM    609  N   LEU A  85      12.199  68.913  29.189  1.00  32.42      7
ATOM    610  CA  LEU A  85      11.065  68.033  28.929  1.00  30.61      6
ATOM    611  CB  LEU A  85      11.322  67.244  27.649  1.00  29.83      6
ATOM    612  CG  LEU A  85      10.253  66.272  27.182  1.00  28.15      6
ATOM    613  CD1 LEU A  85       9.219  67.034  26.338  1.00  27.30      6
ATOM    614  CD2 LEU A  85      10.921  65.138  26.386  1.00  27.81      6
ATOM    615  C   LEU A  85      10.857  67.065  30.086  1.00  30.06      6
ATOM    616  O   LEU A  85      11.779  66.380  30.499  1.00  28.59      8
ATOM    617  N   VAL A  86       9.645  67.007  30.617  1.00  42.85      7
ATOM    618  CA  VAL A  86       9.384  66.093  31.716  1.00  43.95      6
ATOM    619  CB  VAL A  86       8.760  66.804  32.932  1.00  39.00      6
ATOM    620  CG1 VAL A  86       7.557  67.620  32.527  1.00  38.89      6
ATOM    621  CG2 VAL A  86       8.368  65.766  33.960  1.00  40.01      6
ATOM    622  C   VAL A  86       8.462  64.972  31.298  1.00  43.36      6
ATOM    623  O   VAL A  86       7.309  65.215  30.938  1.00  43.19      8
ATOM    624  N   VAL A  87       8.966  63.743  31.351  1.00  21.15      7
ATOM    625  CA  VAL A  87       8.154  62.603  30.958  1.00  23.38      6
ATOM    626  CB  VAL A  87       8.903  61.625  30.004  1.00  39.94      6
ATOM    627  CG1 VAL A  87       9.272  62.330  28.711  1.00  40.80      6
ATOM    628  CG2 VAL A  87      10.139  61.075  30.676  1.00  42.12      6
ATOM    629  C   VAL A  87       7.702  61.822  32.157  1.00  24.21      6
ATOM    630  O   VAL A  87       8.396  61.768  33.169  1.00  23.51      8
ATOM    631  N   ARG A  88       6.512  61.243  32.026  1.00  76.51      7
ATOM    632  CA  ARG A  88       5.903  60.411  33.049  1.00  80.48      6
ATOM    633  CB  ARG A  88       4.408  60.688  33.132  1.00  63.66      6
ATOM    634  CG  ARG A  88       3.694  59.846  34.164  1.00  64.46      6
ATOM    635  CD  ARG A  88       2.414  60.503  34.634  1.00  65.19      6
ATOM    636  NE  ARG A  88       1.763  59.729  35.683  1.00  66.10      7
ATOM    637  CZ  ARG A  88       0.793  60.196  36.463  1.00  68.02      6
ATOM    638  NH1 ARG A  88       0.259  59.417  37.392  1.00  69.40      7
ATOM    639  NH2 ARG A  88       0.356  61.443  36.322  1.00  68.70      7
ATOM    640  C   ARG A  88       6.142  59.014  32.517  1.00  82.14      6
ATOM    641  O   ARG A  88       6.387  58.861  31.326  1.00  83.19      8
ATOM    642  N   PHE A  89       6.073  57.991  33.362  1.00  58.23      7
ATOM    643  CA  PHE A  89       6.326  56.644  32.862  1.00  61.38      6
ATOM    644  CB  PHE A  89       7.625  56.125  33.483  1.00  54.32      6
ATOM    645  CG  PHE A  89       8.849  56.458  32.668  1.00  52.53      6
ATOM    646  CD1 PHE A  89       8.843  57.539  31.788  1.00  51.76      6
ATOM    647  CD2 PHE A  89       9.994  55.672  32.752  1.00  51.86      6
ATOM    648  CE1 PHE A  89       9.953  57.831  31.009  1.00  50.89      6
ATOM    649  CE2 PHE A  89      11.114  55.956  31.976  1.00  50.55      6
ATOM    650  CZ  PHE A  89      11.091  57.037  31.097  1.00  50.23      6
ATOM    651  C   PHE A  89       5.210  55.595  32.952  1.00  63.31      6
ATOM    652  O   PHE A  89       5.355  54.491  32.432  1.00  64.67      8
ATOM    653  N   LEU A  90       4.097  55.938  33.591  1.00  77.73      7
ATOM    654  CA  LEU A  90       2.952  55.033  33.721  1.00  80.08      6
ATOM    655  CB  LEU A  90       2.105  55.065  32.447  1.00  30.07      6
ATOM    656  CG  LEU A  90       1.734  56.412  31.834  1.00  29.09      6
ATOM    657  CD1 LEU A  90       0.710  56.165  30.757  1.00  28.59      6
ATOM    658  CD2 LEU A  90       1.149  57.351  32.870  1.00  29.27      6
ATOM    659  C   LEU A  90       3.250  53.569  34.042  1.00  81.65      6
ATOM    660  O   LEU A  90       2.348  52.738  33.956  1.00  82.47      8
ATOM    661  N   ASP A  91       4.492  53.244  34.396  1.00108.42      7
ATOM    662  CA  ASP A  91       4.856  51.862  34.719  1.00111.01      6
ATOM    663  CB  ASP A  91       4.874  50.999  33.471  1.00109.60      6
```

12

ATOM	664	CG	ASP	A	91	6.246	50.931	32.855	1.00111.18	6
ATOM	665	OD1	ASP	A	91	6.576	51.826	32.056	1.00111.61	8
ATOM	666	OD2	ASP	A	91	7.003	49.995	33.190	1.00112.73	8
ATOM	667	C	ASP	A	91	6.240	51.764	35.345	1.00111.70	6
ATOM	668	O	ASP	A	91	6.993	52.736	35.366	1.00112.36	8
ATOM	669	N	PRO	A	92	6.596	50.577	35.856	1.00 72.17	7
ATOM	670	CD	PRO	A	92	5.630	49.603	36.396	1.00138.10	6
ATOM	671	CA	PRO	A	92	7.910	50.389	36.475	1.00 72.33	6
ATOM	672	CB	PRO	A	92	7.560	49.702	37.781	1.00138.16	6
ATOM	673	CG	PRO	A	92	6.484	48.769	37.341	1.00138.73	6
ATOM	674	C	PRO	A	92	8.902	49.564	35.655	1.00 71.96	6
ATOM	675	O	PRO	A	92	8.517	48.719	34.844	1.00 71.56	8
ATOM	676	N	ALA	A	93	10.186	49.841	35.874	1.00162.67	7
ATOM	677	CA	ALA	A	93	11.286	49.132	35.225	1.00162.90	6
ATOM	678	CB	ALA	A	93	11.106	47.636	35.429	1.00114.11	6
ATOM	679	C	ALA	A	93	11.551	49.407	33.747	1.00162.76	6
ATOM	680	O	ALA	A	93	11.126	48.620	32.900	1.00162.55	8
ATOM	681	N	TRP	A	94	12.270	50.493	33.442	1.00 96.59	7
ATOM	682	CA	TRP	A	94	12.607	50.826	32.055	1.00 95.32	6
ATOM	683	CB	TRP	A	94	11.431	50.488	31.137	1.00107.02	6
ATOM	684	CG	TRP	A	94	10.337	51.499	31.193	1.00108.85	6
ATOM	685	CD2	TRP	A	94	9.655	52.086	30.083	1.00110.00	6
ATOM	686	CE2	TRP	A	94	8.717	52.997	30.607	1.00111.39	6
ATOM	687	CE3	TRP	A	94	9.745	51.932	28.695	1.00110.71	6
ATOM	688	CD1	TRP	A	94	9.800	52.057	32.312	1.00110.15	6
ATOM	689	NE1	TRP	A	94	8.829	52.959	31.971	1.00111.87	7
ATOM	690	CZ2	TRP	A	94	7.871	53.756	29.792	1.00112.08	6
ATOM	691	CZ3	TRP	A	94	8.902	52.687	27.885	1.00112.05	6
ATOM	692	CH2	TRP	A	94	7.979	53.587	28.438	1.00112.66	6
ATOM	693	C	TRP	A	94	13.012	52.272	31.763	1.00 92.85	6
ATOM	694	O	TRP	A	94	12.934	53.149	32.623	1.00 92.99	8
ATOM	695	N	ARG	A	95	13.433	52.482	30.514	1.00 77.36	7
ATOM	696	CA	ARG	A	95	13.819	53.780	29.951	1.00 73.49	6
ATOM	697	CB	ARG	A	95	15.327	53.988	30.002	1.00 89.27	6
ATOM	698	CG	ARG	A	95	16.061	53.578	28.730	1.00 91.22	6
ATOM	699	CD	ARG	A	95	16.014	52.068	28.466	1.00 92.63	6
ATOM	700	NE	ARG	A	95	16.719	51.720	27.231	1.00 94.64	7
ATOM	701	CZ	ARG	A	95	16.777	50.500	26.706	1.00 96.74	6
ATOM	702	NH1	ARG	A	95	16.164	49.483	27.305	1.00 97.64	7
ATOM	703	NH2	ARG	A	95	17.452	50.299	25.579	1.00 98.03	7
ATOM	704	C	ARG	A	95	13.379	53.654	28.493	1.00 69.86	6
ATOM	705	O	ARG	A	95	13.380	52.562	27.946	1.00 70.69	8
ATOM	706	N	THR	A	96	13.012	54.745	27.846	1.00 30.81	7
ATOM	707	CA	THR	A	96	12.552	54.628	26.469	1.00 26.69	6
ATOM	708	CB	THR	A	96	10.978	54.571	26.415	1.00 13.87	6
ATOM	709	OG1	THR	A	96	10.537	54.617	25.053	1.00 13.87	8
ATOM	710	CG2	THR	A	96	10.353	55.715	27.192	1.00 13.87	6
ATOM	711	C	THR	A	96	13.093	55.728	25.560	1.00 24.46	6
ATOM	712	O	THR	A	96	13.990	56.467	25.967	1.00 23.10	8
ATOM	713	N	THR	A	97	12.554	55.839	24.342	1.00 70.32	7
ATOM	714	CA	THR	A	97	13.029	56.845	23.400	1.00 68.74	6
ATOM	715	CB	THR	A	97	14.070	56.273	22.467	1.00 66.34	6
ATOM	716	OG1	THR	A	97	14.815	55.258	23.147	1.00 67.45	8
ATOM	717	CG2	THR	A	97	15.001	57.381	21.986	1.00 65.31	6
ATOM	718	C	THR	A	97	11.998	57.494	22.497	1.00 67.24	6
ATOM	719	O	THR	A	97	11.613	56.927	21.478	1.00 68.97	8

13

```
ATOM    720  N   LEU A  98      11.589  58.704  22.856  1.00 38.90      7
ATOM    721  CA  LEU A  98      10.628  59.478  22.079  1.00 36.55      6
ATOM    722  CB  LEU A  98      10.416  60.843  22.750  1.00 32.16      6
ATOM    723  CG  LEU A  98       9.636  60.817  24.077  1.00 31.78      6
ATOM    724  CD1 LEU A  98       8.132  60.750  23.797  1.00 31.19      6
ATOM    725  CD2 LEU A  98      10.073  59.627  24.931  1.00 30.42      6
ATOM    726  C   LEU A  98      11.131  59.647  20.638  1.00 35.43      6
ATOM    727  O   LEU A  98      12.309  59.422  20.348  1.00 37.05      8
ATOM    728  N   ILE A  99      10.220  60.023  19.746  1.00 13.87      7
ATOM    729  CA  ILE A  99      10.493  60.208  18.322  1.00 13.87      6
ATOM    730  CB  ILE A  99       9.951  59.037  17.487  1.00 28.58      6
ATOM    731  CG2 ILE A  99      10.336  59.220  16.058  1.00 28.83      6
ATOM    732  CG1 ILE A  99      10.455  57.698  18.045  1.00 29.22      6
ATOM    733  CD1 ILE A  99      11.967  57.497  18.012  1.00 29.54      6
ATOM    734  C   ILE A  99       9.749  61.451  17.892  1.00 13.87      6
ATOM    735  O   ILE A  99       8.802  61.856  18.546  1.00 13.87      8
ATOM    736  N   LEU A 100      10.149  62.063  16.793  1.00 15.12      7
ATOM    737  CA  LEU A 100       9.451  63.261  16.368  1.00 18.83      6
ATOM    738  CB  LEU A 100       9.689  64.400  17.362  1.00 24.33      6
ATOM    739  CG  LEU A 100       9.854  65.811  16.787  1.00 24.43      6
ATOM    740  CD1 LEU A 100       8.642  66.171  16.002  1.00 26.73      6
ATOM    741  CD2 LEU A 100      10.055  66.820  17.892  1.00 23.82      6
ATOM    742  C   LEU A 100       9.858  63.709  14.994  1.00 19.65      6
ATOM    743  O   LEU A 100      11.032  63.946  14.734  1.00 19.44      8
ATOM    744  N   ARG A 101       8.858  63.847  14.133  1.00 55.57      7
ATOM    745  CA  ARG A 101       9.036  64.286  12.757  1.00 58.59      6
ATOM    746  CB  ARG A 101       8.513  63.191  11.815  1.00132.06      6
ATOM    747  CG  ARG A 101       9.239  63.046  10.478  1.00135.60      6
ATOM    748  CD  ARG A 101       8.651  61.883   9.672  1.00137.39      6
ATOM    749  NE  ARG A 101       9.392  61.598   8.443  1.00139.28      7
ATOM    750  CZ  ARG A 101       9.039  60.669   7.556  1.00140.18      6
ATOM    751  NH1 ARG A 101       7.953  59.931   7.756  1.00139.80      7
ATOM    752  NH2 ARG A 101       9.777  60.467   6.472  1.00140.56      7
ATOM    753  C   ARG A 101       8.192  65.564  12.623  1.00 58.89      6
ATOM    754  O   ARG A 101       7.064  65.626  13.129  1.00 59.23      8
ATOM    755  N   ALA A 102       8.720  66.587  11.961  1.00 35.89      7
ATOM    756  CA  ALA A 102       7.947  67.821  11.811  1.00 38.61      6
ATOM    757  CB  ALA A 102       8.293  68.793  12.932  1.00 67.58      6
ATOM    758  C   ALA A 102       8.137  68.493  10.451  1.00 38.78      6
ATOM    759  O   ALA A 102       9.262  68.718  10.003  1.00 38.84      8
ATOM    760  N   GLU A 103       7.030  68.835   9.806  1.00 34.50      7
ATOM    761  CA  GLU A 103       7.088  69.445   8.488  1.00 36.32      6
ATOM    762  CB  GLU A 103       5.869  69.029   7.673  1.00 66.19      6
ATOM    763  CG  GLU A 103       5.987  67.636   7.113  1.00 66.55      6
ATOM    764  CD  GLU A 103       7.340  67.422   6.499  1.00 65.97      6
ATOM    765  OE1 GLU A 103       7.770  68.300   5.719  1.00 64.19      8
ATOM    766  OE2 GLU A 103       7.973  66.387   6.802  1.00 66.71      8
ATOM    767  C   GLU A 103       7.221  70.952   8.435  1.00 38.51      6
ATOM    768  O   GLU A 103       7.263  71.638   9.456  1.00 38.40      8
ATOM    769  N   GLY A 104       7.280  71.444   7.202  1.00 82.92      7
ATOM    770  CA  GLY A 104       7.412  72.859   6.906  1.00 86.20      6
ATOM    771  C   GLY A 104       7.259  73.885   8.006  1.00 87.20      6
ATOM    772  O   GLY A 104       8.069  73.938   8.927  1.00 87.75      8
ATOM    773  N   PRO A 105       6.220  74.729   7.925  1.00121.54      7
ATOM    774  CD  PRO A 105       5.240  74.798   6.823  1.00 82.59      6
ATOM    775  CA  PRO A 105       5.956  75.775   8.911  1.00122.33      6
```

14

ATOM	776	CB	PRO	A	105	5.165	76.789	8.101	1.00	82.71	6
ATOM	777	CG	PRO	A	105	4.280	75.890	7.292	1.00	82.69	6
ATOM	778	C	PRO	A	105	5.187	75.310	10.143	1.00	121.71	6
ATOM	779	O	PRO	A	105	4.319	74.442	10.050	1.00	121.21	8
ATOM	780	N	LYS	A	106	5.525	75.908	11.284	1.00	81.15	7
ATOM	781	CA	LYS	A	106	4.887	75.646	12.572	1.00	81.76	6
ATOM	782	CB	LYS	A	106	4.137	74.322	12.567	1.00	80.86	6
ATOM	783	CG	LYS	A	106	5.010	73.105	12.524	1.00	80.61	6
ATOM	784	CD	LYS	A	106	4.113	71.913	12.641	1.00	82.64	6
ATOM	785	CE	LYS	A	106	4.884	70.632	12.761	1.00	84.29	6
ATOM	786	NZ	LYS	A	106	3.925	69.490	12.835	1.00	86.22	7
ATOM	787	C	LYS	A	106	5.885	75.632	13.711	1.00	81.50	6
ATOM	788	O	LYS	A	106	7.014	76.092	13.565	1.00	81.66	8
ATOM	789	N	GLU	A	107	5.447	75.108	14.849	1.00	61.87	7
ATOM	790	CA	GLU	A	107	6.283	75.001	16.035	1.00	62.76	6
ATOM	791	CB	GLU	A	107	5.757	75.913	17.136	1.00	63.05	6
ATOM	792	CG	GLU	A	107	5.992	77.370	16.866	1.00	62.98	6
ATOM	793	CD	GLU	A	107	5.557	78.241	18.015	1.00	63.40	6
ATOM	794	OE1	GLU	A	107	5.837	77.874	19.181	1.00	62.44	8
ATOM	795	OE2	GLU	A	107	4.941	79.295	17.743	1.00	64.68	8
ATOM	796	C	GLU	A	107	6.275	73.563	16.524	1.00	62.81	6
ATOM	797	O	GLU	A	107	5.216	72.949	16.628	1.00	64.05	8
ATOM	798	N	VAL	A	108	7.445	73.015	16.828	1.00	92.35	7
ATOM	799	CA	VAL	A	108	7.489	71.641	17.298	1.00	90.77	6
ATOM	800	CB	VAL	A	108	8.786	70.926	16.886	1.00	24.79	6
ATOM	801	CG1	VAL	A	108	8.524	69.456	16.759	1.00	22.72	6
ATOM	802	CG2	VAL	A	108	9.305	71.473	15.599	1.00	23.64	6
ATOM	803	C	VAL	A	108	7.373	71.569	18.813	1.00	90.99	6
ATOM	804	O	VAL	A	108	8.067	70.785	19.448	1.00	91.87	8
ATOM	805	N	ARG	A	109	6.504	72.389	19.394	1.00	16.19	7
ATOM	806	CA	ARG	A	109	6.318	72.367	20.836	1.00	17.08	6
ATOM	807	CB	ARG	A	109	5.075	73.192	21.230	1.00	79.46	6
ATOM	808	CG	ARG	A	109	3.702	72.618	20.870	1.00	82.11	6
ATOM	809	CD	ARG	A	109	3.528	72.443	19.373	1.00	82.88	6
ATOM	810	NE	ARG	A	109	2.130	72.272	18.982	1.00	82.78	7
ATOM	811	CZ	ARG	A	109	1.738	71.912	17.762	1.00	83.25	6
ATOM	812	NH1	ARG	A	109	2.636	71.675	16.816	1.00	82.30	7
ATOM	813	NH2	ARG	A	109	0.448	71.812	17.477	1.00	83.70	7
ATOM	814	C	ARG	A	109	6.211	70.916	21.329	1.00	16.63	6
ATOM	815	O	ARG	A	109	5.687	70.052	20.636	1.00	16.88	8
ATOM	816	N	ALA	A	110	6.733	70.653	22.520	1.00	43.26	7
ATOM	817	CA	ALA	A	110	6.740	69.314	23.119	1.00	44.15	6
ATOM	818	CB	ALA	A	110	6.592	69.434	24.630	1.00	62.64	6
ATOM	819	C	ALA	A	110	5.731	68.300	22.582	1.00	44.52	6
ATOM	820	O	ALA	A	110	6.111	67.264	22.031	1.00	43.73	8
ATOM	821	N	VAL	A	111	4.450	68.589	22.757	1.00	59.09	7
ATOM	822	CA	VAL	A	111	3.391	67.687	22.302	1.00	60.52	6
ATOM	823	CB	VAL	A	111	2.128	68.466	21.894	1.00	208.87	6
ATOM	824	CG1	VAL	A	111	1.013	67.493	21.525	1.00	208.87	6
ATOM	825	CG2	VAL	A	111	1.698	69.385	23.021	1.00	208.87	6
ATOM	826	C	VAL	A	111	3.792	66.821	21.119	1.00	58.77	6
ATOM	827	O	VAL	A	111	3.854	65.596	21.229	1.00	58.31	8
ATOM	828	N	ASP	A	112	4.046	67.490	19.996	1.00	43.13	7
ATOM	829	CA	ASP	A	112	4.447	66.875	18.733	1.00	43.00	6
ATOM	830	CB	ASP	A	112	5.244	67.892	17.922	1.00	56.89	6
ATOM	831	CG	ASP	A	112	4.385	69.026	17.420	1.00	56.48	6

15

```
ATOM    832  OD1  ASP A 112      3.586  68.794  16.497  1.00  55.87      8
ATOM    833  OD2  ASP A 112      4.496  70.145  17.948  1.00  56.33      8
ATOM    834  C    ASP A 112      5.225  65.556  18.789  1.00  42.03      6
ATOM    835  O    ASP A 112      5.499  64.949  17.753  1.00  41.37      8
ATOM    836  N    PHE A 113      5.596  65.113  19.983  1.00  66.40      7
ATOM    837  CA   PHE A 113      6.326  63.861  20.106  1.00  67.18      6
ATOM    838  CB   PHE A 113      6.863  63.705  21.527  1.00  48.77      6
ATOM    839  CG   PHE A 113      8.243  64.271  21.710  1.00  45.55      6
ATOM    840  CD1  PHE A 113      8.769  65.166  20.786  1.00  43.11      6
ATOM    841  CD2  PHE A 113      9.018  63.901  22.798  1.00  44.09      6
ATOM    842  CE1  PHE A 113     10.036  65.672  20.940  1.00  42.90      6
ATOM    843  CE2  PHE A 113     10.285  64.405  22.959  1.00  43.06      6
ATOM    844  CZ   PHE A 113     10.797  65.294  22.027  1.00  43.40      6
ATOM    845  C    PHE A 113      5.447  62.681  19.734  1.00  67.93      6
ATOM    846  O    PHE A 113      4.225  62.817  19.655  1.00  68.13      8
ATOM    847  N    THR A 114      6.077  61.532  19.500  1.00  87.75      7
ATOM    848  CA   THR A 114      5.366  60.317  19.122  1.00  87.95      6
ATOM    849  CB   THR A 114      6.351  59.177  18.778  1.00  77.17      6
ATOM    850  OG1  THR A 114      5.628  58.046  18.287  1.00  75.93      8
ATOM    851  CG2  THR A 114      7.132  58.753  20.007  1.00  78.13      6
ATOM    852  C    THR A 114      4.433  59.833  20.226  1.00  88.39      6
ATOM    853  O    THR A 114      4.879  59.372  21.278  1.00  88.57      8
ATOM    854  N    PRO A 115      3.115  59.943  20.005  1.00  98.73      7
ATOM    855  CD   PRO A 115      2.382  60.327  18.785  1.00  90.85      6
ATOM    856  CA   PRO A 115      2.203  59.480  21.053  1.00  99.15      6
ATOM    857  CB   PRO A 115      0.824  59.750  20.445  1.00  90.46      6
ATOM    858  CG   PRO A 115      1.071  59.620  18.964  1.00  91.10      6
ATOM    859  C    PRO A 115      2.491  58.003  21.267  1.00  98.39      6
ATOM    860  O    PRO A 115      2.155  57.190  20.415  1.00  98.70      8
ATOM    861  N    SER A 116      3.117  57.640  22.383  1.00  43.20      7
ATOM    862  CA   SER A 116      3.438  56.228  22.566  1.00  43.88      6
ATOM    863  CB   SER A 116      4.600  55.863  21.632  1.00127.33      6
ATOM    864  OG   SER A 116      5.700  56.740  21.807  1.00127.37      8
ATOM    865  C    SER A 116      3.724  55.633  23.955  1.00  44.19      6
ATOM    866  O    SER A 116      4.506  56.168  24.747  1.00  43.78      8
ATOM    867  N    ALA A 117      3.087  54.490  24.210  1.00137.91      7
ATOM    868  CA   ALA A 117      3.233  53.735  25.450  1.00139.42      6
ATOM    869  CB   ALA A 117      4.570  53.008  25.448  1.00  13.87      6
ATOM    870  C    ALA A 117      3.081  54.534  26.740  1.00139.97      6
ATOM    871  O    ALA A 117      2.550  55.642  26.745  1.00139.94      8
ATOM    872  N    ASP A 118      3.551  53.941  27.834  1.00  85.71      7
ATOM    873  CA   ASP A 118      3.482  54.546  29.160  1.00  87.10      6
ATOM    874  CB   ASP A 118      3.999  53.559  30.207  1.00196.72      6
ATOM    875  CG   ASP A 118      3.155  52.311  30.302  1.00198.95      6
ATOM    876  OD1  ASP A 118      1.950  52.431  30.601  1.00200.67      8
ATOM    877  OD2  ASP A 118      3.697  51.207  30.083  1.00199.32      8
ATOM    878  C    ASP A 118      4.304  55.822  29.238  1.00  86.97      6
ATOM    879  O    ASP A 118      5.182  55.943  30.087  1.00  87.04      8
ATOM    880  N    VAL A 119      4.007  56.779  28.368  1.00144.02      7
ATOM    881  CA   VAL A 119      4.756  58.026  28.339  1.00143.57      6
ATOM    882  CB   VAL A 119      5.696  58.055  27.106  1.00139.37      6
ATOM    883  CG1  VAL A 119      6.478  59.356  27.069  1.00140.66      6
ATOM    884  CG2  VAL A 119      6.640  56.864  27.142  1.00139.26      6
ATOM    885  C    VAL A 119      3.869  59.268  28.297  1.00142.87      6
ATOM    886  O    VAL A 119      3.183  59.505  27.301  1.00143.40      8
ATOM    887  N    GLU A 120      3.882  60.060  29.370  1.00  58.92      7
```

16

ATOM	888	CA	GLU	A	120	3.087	61.290	29.402	1.00	57.67	6
ATOM	889	CB	GLU	A	120	2.308	61.423	30.708	1.00	57.66	6
ATOM	890	CG	GLU	A	120	1.164	60.461	30.889	1.00	55.40	6
ATOM	891	CD	GLU	A	120	0.288	60.853	32.059	1.00	52.98	6
ATOM	892	OE1	GLU	A	120	-0.443	61.863	31.938	1.00	52.12	8
ATOM	893	OE2	GLU	A	120	0.333	60.160	33.096	1.00	50.64	8
ATOM	894	C	GLU	A	120	3.947	62.538	29.255	1.00	56.66	6
ATOM	895	O	GLU	A	120	4.692	62.886	30.169	1.00	57.46	8
ATOM	896	N	ILE	A	121	3.850	63.209	28.111	1.00	43.45	7
ATOM	897	CA	ILE	A	121	4.604	64.440	27.898	1.00	42.84	6
ATOM	898	CB	ILE	A	121	4.522	64.902	26.425	1.00	53.47	6
ATOM	899	CG2	ILE	A	121	5.189	66.249	26.242	1.00	53.52	6
ATOM	900	CG1	ILE	A	121	5.215	63.875	25.537	1.00	53.84	6
ATOM	901	CD1	ILE	A	121	6.623	63.569	25.968	1.00	54.20	6
ATOM	902	C	ILE	A	121	3.967	65.470	28.830	1.00	41.89	6
ATOM	903	O	ILE	A	121	3.431	66.515	28.406	1.00	41.93	8
ATOM	904	N	MET	A	122	4.020	65.113	30.112	1.00	48.93	7
ATOM	905	CA	MET	A	122	3.494	65.888	31.214	1.00	48.79	6
ATOM	906	CB	MET	A	122	4.374	65.665	32.436	1.00	96.83	6
ATOM	907	CG	MET	A	122	3.626	65.452	33.729	1.00	99.46	6
ATOM	908	SD	MET	A	122	3.284	63.721	34.020	1.00	100.08	16
ATOM	909	CE	MET	A	122	1.698	63.577	33.257	1.00	100.85	6
ATOM	910	C	MET	A	122	3.476	67.369	30.882	1.00	47.40	6
ATOM	911	O	MET	A	122	2.537	68.082	31.221	1.00	47.59	8
ATOM	912	N	ASN	A	123	4.525	67.822	30.206	1.00	100.32	7
ATOM	913	CA	ASN	A	123	4.660	69.225	29.861	1.00	99.15	6
ATOM	914	CB	ASN	A	123	5.979	69.765	30.419	1.00	60.16	6
ATOM	915	CG	ASN	A	123	7.193	68.984	29.924	1.00	58.49	6
ATOM	916	OD1	ASN	A	123	7.088	67.809	29.560	1.00	56.34	8
ATOM	917	ND2	ASN	A	123	8.357	69.629	29.941	1.00	57.81	7
ATOM	918	C	ASN	A	123	4.586	69.556	28.387	1.00	98.67	6
ATOM	919	O	ASN	A	123	5.610	69.847	27.769	1.00	99.56	8
ATOM	920	N	PRO	A	124	3.379	69.523	27.798	1.00	44.27	7
ATOM	921	CD	PRO	A	124	2.068	69.317	28.425	1.00	98.26	6
ATOM	922	CA	PRO	A	124	3.228	69.845	26.375	1.00	43.49	6
ATOM	923	CB	PRO	A	124	1.720	69.776	26.166	1.00	98.08	6
ATOM	924	CG	PRO	A	124	1.177	70.114	27.514	1.00	99.23	6
ATOM	925	C	PRO	A	124	3.809	71.236	26.091	1.00	42.28	6
ATOM	926	O	PRO	A	124	4.800	71.634	26.713	1.00	41.44	8
ATOM	927	N	ASP	A	125	3.196	71.987	25.181	1.00	72.10	7
ATOM	928	CA	ASP	A	125	3.715	73.315	24.842	1.00	71.22	6
ATOM	929	CB	ASP	A	125	3.290	74.367	25.881	1.00	58.39	6
ATOM	930	CG	ASP	A	125	2.384	73.801	26.968	1.00	59.12	6
ATOM	931	OD1	ASP	A	125	1.510	72.971	26.649	1.00	58.91	8
ATOM	932	OD2	ASP	A	125	2.528	74.200	28.145	1.00	59.76	8
ATOM	933	C	ASP	A	125	5.240	73.204	24.792	1.00	69.73	6
ATOM	934	O	ASP	A	125	5.796	72.731	23.806	1.00	70.17	8
ATOM	935	N	LEU	A	126	5.913	73.620	25.858	1.00	29.24	7
ATOM	936	CA	LEU	A	126	7.367	73.523	25.929	1.00	29.23	6
ATOM	937	CB	LEU	A	126	7.729	72.167	26.552	1.00	23.23	6
ATOM	938	CG	LEU	A	126	9.163	71.658	26.398	1.00	22.23	6
ATOM	939	CD1	LEU	A	126	10.174	72.770	26.649	1.00	22.69	6
ATOM	940	CD2	LEU	A	126	9.382	70.502	27.347	1.00	20.55	6
ATOM	941	C	LEU	A	126	8.036	73.707	24.557	1.00	29.26	6
ATOM	942	O	LEU	A	126	8.539	72.755	23.963	1.00	29.35	8
ATOM	943	N	HIS	A	127	8.045	74.942	24.062	1.00	67.12	7

ATOM	944	CA	HIS	A	127	8.619	75.246	22.747	1.00	68.12	6
ATOM	945	CB	HIS	A	127	8.936	76.739	22.638	1.00	79.55	6
ATOM	946	CG	HIS	A	127	9.494	77.146	21.306	1.00	81.29	6
ATOM	947	CD2	HIS	A	127	10.036	76.418	20.299	1.00	81.61	6
ATOM	948	ND1	HIS	A	127	9.542	78.461	20.895	1.00	82.58	7
ATOM	949	CE1	HIS	A	127	10.091	78.526	19.696	1.00	82.91	6
ATOM	950	NE2	HIS	A	127	10.399	77.301	19.311	1.00	82.76	7
ATOM	951	C	HIS	A	127	9.862	74.450	22.375	1.00	67.26	6
ATOM	952	O	HIS	A	127	10.961	74.800	22.780	1.00	67.73	8
ATOM	953	N	ILE	A	128	9.698	73.415	21.561	1.00	26.95	7
ATOM	954	CA	ILE	A	128	10.830	72.595	21.176	1.00	26.01	6
ATOM	955	CB	ILE	A	128	10.383	71.144	21.000	1.00	19.30	6
ATOM	956	CG2	ILE	A	128	11.557	70.246	20.617	1.00	18.95	6
ATOM	957	CG1	ILE	A	128	9.788	70.660	22.303	1.00	18.10	6
ATOM	958	CD1	ILE	A	128	10.741	70.757	23.436	1.00	18.67	6
ATOM	959	C	ILE	A	128	11.618	73.032	19.937	1.00	26.70	6
ATOM	960	O	ILE	A	128	12.840	72.839	19.889	1.00	26.62	8
ATOM	961	N	ALA	A	129	10.947	73.614	18.939	1.00	61.74	7
ATOM	962	CA	ALA	A	129	11.644	74.037	17.712	1.00	63.00	6
ATOM	963	CB	ALA	A	129	12.309	72.821	17.053	1.00	29.93	6
ATOM	964	C	ALA	A	129	10.795	74.780	16.673	1.00	62.52	6
ATOM	965	O	ALA	A	129	10.032	74.176	15.920	1.00	62.23	8
ATOM	966	N	THR	A	130	10.957	76.095	16.626	1.00	42.47	7
ATOM	967	CA	THR	A	130	10.222	76.922	15.685	1.00	44.16	6
ATOM	968	CB	THR	A	130	10.261	78.415	16.114	1.00	37.02	6
ATOM	969	OG1	THR	A	130	9.345	78.624	17.193	1.00	36.43	8
ATOM	970	CG2	THR	A	130	9.874	79.329	14.972	1.00	38.61	6
ATOM	971	C	THR	A	130	10.781	76.773	14.271	1.00	44.81	6
ATOM	972	O	THR	A	130	11.369	77.711	13.718	1.00	45.51	8
ATOM	973	N	LEU	A	131	10.597	75.590	13.684	1.00	69.43	7
ATOM	974	CA	LEU	A	131	11.078	75.343	12.324	1.00	70.26	6
ATOM	975	CB	LEU	A	131	11.388	73.844	12.126	1.00	23.62	6
ATOM	976	CG	LEU	A	131	10.496	72.762	12.723	1.00	20.66	6
ATOM	977	CD1	LEU	A	131	9.163	72.821	12.018	1.00	20.91	6
ATOM	978	CD2	LEU	A	131	11.130	71.373	12.573	1.00	18.41	6
ATOM	979	C	LEU	A	131	10.085	75.865	11.275	1.00	71.29	6
ATOM	980	O	LEU	A	131	8.915	76.101	11.587	1.00	71.02	8
ATOM	981	N	GLU	A	132	10.552	76.073	10.045	1.00	34.39	7
ATOM	982	CA	GLU	A	132	9.665	76.587	9.009	1.00	37.30	6
ATOM	983	CB	GLU	A	132	9.125	77.960	9.414	1.00	144.24	6
ATOM	984	CG	GLU	A	132	10.175	79.051	9.488	1.00	146.96	6
ATOM	985	CD	GLU	A	132	9.600	80.377	9.947	1.00	148.66	6
ATOM	986	OE1	GLU	A	132	9.088	80.435	11.084	1.00	149.93	8
ATOM	987	OE2	GLU	A	132	9.656	81.356	9.174	1.00	149.02	8
ATOM	988	C	GLU	A	132	10.300	76.691	7.633	1.00	37.42	6
ATOM	989	O	GLU	A	132	11.519	76.702	7.504	1.00	36.86	8
ATOM	990	N	GLU	A	133	9.447	76.785	6.612	1.00	74.32	7
ATOM	991	CA	GLU	A	133	9.860	76.865	5.211	1.00	76.30	6
ATOM	992	CB	GLU	A	133	10.583	78.192	4.931	1.00	107.76	6
ATOM	993	CG	GLU	A	133	9.686	79.264	4.291	1.00	110.53	6
ATOM	994	CD	GLU	A	133	10.452	80.510	3.820	1.00	112.96	6
ATOM	995	OE1	GLU	A	133	11.503	80.360	3.155	1.00	114.35	8
ATOM	996	OE2	GLU	A	133	9.991	81.642	4.099	1.00	113.77	8
ATOM	997	C	GLU	A	133	10.735	75.674	4.796	1.00	76.32	6
ATOM	998	O	GLU	A	133	11.134	75.556	3.641	1.00	76.78	8
ATOM	999	N	GLY	A	134	11.012	74.786	5.748	1.00	49.88	7

```
ATOM   1000  CA   GLY A 134      11.824  73.610   5.486  1.00  49.15        6
ATOM   1001  C    GLY A 134      11.557  72.535   6.528  1.00  48.48        6
ATOM   1002  O    GLY A 134      12.406  72.236   7.367  1.00  47.28        8
ATOM   1003  N    GLY A 135      10.362  71.956   6.484  1.00100.77         7
ATOM   1004  CA   GLY A 135      10.015  70.916   7.433  1.00100.88         6
ATOM   1005  C    GLY A 135      11.060  69.829   7.445  1.00100.39         6
ATOM   1006  O    GLY A 135      11.122  68.995   6.541  1.00101.39         8
ATOM   1007  N    LYS A 136      11.889  69.832   8.477  1.00  53.75        7
ATOM   1008  CA   LYS A 136      12.947  68.844   8.579  1.00  52.81        6
ATOM   1009  CB   LYS A 136      14.117  69.281   7.689  1.00  74.23        6
ATOM   1010  CG   LYS A 136      15.236  68.259   7.540  1.00  75.69        6
ATOM   1011  CD   LYS A 136      14.739  66.966   6.914  1.00  75.71        6
ATOM   1012  CE   LYS A 136      15.869  65.960   6.800  1.00  76.06        6
ATOM   1013  NZ   LYS A 136      15.425  64.618   6.316  1.00  77.03        7
ATOM   1014  C    LYS A 136      13.406  68.730  10.028  1.00  50.77        6
ATOM   1015  O    LYS A 136      14.026  69.653  10.542  1.00  50.85        8
ATOM   1016  N    LEU A 137      13.116  67.611  10.691  1.00  63.98        7
ATOM   1017  CA   LEU A 137      13.541  67.485  12.074  1.00  62.44        6
ATOM   1018  CB   LEU A 137      12.599  68.281  12.968  1.00  36.13        6
ATOM   1019  CG   LEU A 137      13.185  68.463  14.370  1.00  34.38        6
ATOM   1020  CD1  LEU A 137      14.506  69.223  14.245  1.00  34.17        6
ATOM   1021  CD2  LEU A 137      12.211  69.201  15.277  1.00  33.90        6
ATOM   1022  C    LEU A 137      13.742  66.105  12.703  1.00  61.48        6
ATOM   1023  O    LEU A 137      14.491  65.990  13.667  1.00  62.25        8
ATOM   1024  N    TYR A 138      13.111  65.063  12.169  1.00  28.02        7
ATOM   1025  CA   TYR A 138      13.216  63.715  12.760  1.00  26.33        6
ATOM   1026  CB   TYR A 138      13.480  62.626  11.710  1.00  33.29        6
ATOM   1027  CG   TYR A 138      13.352  61.254  12.349  1.00  30.22        6
ATOM   1028  CD1  TYR A 138      12.109  60.764  12.741  1.00  27.96        6
ATOM   1029  CE1  TYR A 138      11.996  59.605  13.494  1.00  25.43        6
ATOM   1030  CD2  TYR A 138      14.477  60.528  12.716  1.00  28.72        6
ATOM   1031  CE2  TYR A 138      14.369  59.360  13.476  1.00  26.35        6
ATOM   1032  CZ   TYR A 138      13.128  58.911  13.868  1.00  24.91        6
ATOM   1033  OH   TYR A 138      13.038  57.813  14.691  1.00  22.73        8
ATOM   1034  C    TYR A 138      14.234  63.532  13.878  1.00  25.01        6
ATOM   1035  O    TYR A 138      15.438  63.496  13.622  1.00  23.65        8
ATOM   1036  N    MET A 139      13.734  63.385  15.106  1.00  33.00        7
ATOM   1037  CA   MET A 139      14.595  63.210  16.272  1.00  35.08        6
ATOM   1038  CB   MET A 139      14.544  64.450  17.174  1.00  79.45        6
ATOM   1039  CG   MET A 139      14.819  65.770  16.493  1.00  83.48        6
ATOM   1040  SD   MET A 139      14.970  67.100  17.691  1.00  86.79       16
ATOM   1041  CE   MET A 139      13.312  67.231  18.277  1.00  86.81        6
ATOM   1042  C    MET A 139      14.271  62.000  17.150  1.00  34.13        6
ATOM   1043  O    MET A 139      13.125  61.795  17.525  1.00  34.95        8
ATOM   1044  N    GLU A 140      15.286  61.206  17.476  1.00  57.41        7
ATOM   1045  CA   GLU A 140      15.118  60.063  18.367  1.00  56.32        6
ATOM   1046  CB   GLU A 140      15.884  58.852  17.847  1.00  58.63        6
ATOM   1047  CG   GLU A 140      15.386  58.247  16.555  1.00  58.67        6
ATOM   1048  CD   GLU A 140      16.270  57.087  16.109  1.00  58.99        6
ATOM   1049  OE1  GLU A 140      16.632  56.255  16.972  1.00  58.20        8
ATOM   1050  OE2  GLU A 140      16.601  56.996  14.907  1.00  58.51        8
ATOM   1051  C    GLU A 140      15.786  60.576  19.646  1.00  55.08        6
ATOM   1052  O    GLU A 140      16.996  60.810  19.649  1.00  55.57        8
ATOM   1053  N    VAL A 141      15.024  60.752  20.725  1.00  13.87        7
ATOM   1054  CA   VAL A 141      15.589  61.296  21.968  1.00  13.87        6
ATOM   1055  CB   VAL A 141      15.108  62.767  22.184  1.00  30.35        6
```

19

```
ATOM   1056  CG1 VAL A 141      13.773  63.001  21.501  1.00 30.27      6
ATOM   1057  CG2 VAL A 141      14.992  63.081  23.658  1.00 30.89      6
ATOM   1058  C   VAL A 141      15.340  60.502  23.232  1.00 13.87      8
ATOM   1059  O   VAL A 141      14.292  60.615  23.837  1.00 13.87      7
ATOM   1060  N   ARG A 142      16.332  59.728  23.644  1.00 15.97      7
ATOM   1061  CA  ARG A 142      16.230  58.885  24.832  1.00 17.66      6
ATOM   1062  CB  ARG A 142      17.620  58.497  25.319  1.00 36.74      6
ATOM   1063  CG  ARG A 142      17.799  57.015  25.461  1.00 35.26      6
ATOM   1064  CD  ARG A 142      18.739  56.701  26.556  1.00 33.63      6
ATOM   1065  NE  ARG A 142      18.991  55.274  26.633  1.00 33.56      7
ATOM   1066  CZ  ARG A 142      19.798  54.715  27.530  1.00 35.05      6
ATOM   1067  NH1 ARG A 142      20.415  55.482  28.419  1.00 36.63      7
ATOM   1068  NH2 ARG A 142      20.006  53.398  27.540  1.00 35.26      7
ATOM   1069  C   ARG A 142      15.469  59.522  25.983  1.00 18.25      6
ATOM   1070  O   ARG A 142      15.072  60.668  25.876  1.00 17.69      8
ATOM   1071  N   VAL A 143      15.262  58.765  27.069  1.00 52.69      7
ATOM   1072  CA  VAL A 143      14.570  59.241  28.285  1.00 55.71      6
ATOM   1073  CB  VAL A 143      13.054  59.520  28.052  1.00156.86      6
ATOM   1074  CG1 VAL A 143      12.845  60.943  27.562  1.00158.32      6
ATOM   1075  CG2 VAL A 143      12.485  58.534  27.060  1.00159.44      6
ATOM   1076  C   VAL A 143      14.678  58.266  29.463  1.00 55.82      6
ATOM   1077  O   VAL A 143      13.678  57.742  29.938  1.00 56.81      8
ATOM   1078  N   ASP A 144      15.903  58.048  29.933  1.00 35.56      7
ATOM   1079  CA  ASP A 144      16.206  57.144  31.048  1.00 36.24      6
ATOM   1080  CB  ASP A 144      17.717  56.993  31.235  1.00 43.33      6
ATOM   1081  CG  ASP A 144      18.337  56.016  30.264  1.00 44.54      6
ATOM   1082  OD1 ASP A 144      17.875  55.965  29.096  1.00 44.64      8
ATOM   1083  OD2 ASP A 144      19.298  55.312  30.672  1.00 44.72      8
ATOM   1084  C   ASP A 144      15.647  57.566  32.378  1.00 35.85      6
ATOM   1085  O   ASP A 144      15.210  58.701  32.568  1.00 35.46      8
ATOM   1086  N   ARG A 145      15.705  56.626  33.310  1.00 58.26      7
ATOM   1087  CA  ARG A 145      15.223  56.844  34.659  1.00 61.18      6
ATOM   1088  CB  ARG A 145      14.411  55.625  35.120  1.00 90.29      6
ATOM   1089  CG  ARG A 145      13.329  55.909  36.166  1.00 92.68      6
ATOM   1090  CD  ARG A 145      12.117  54.997  35.952  1.00 93.22      6
ATOM   1091  NE  ARG A 145      10.965  55.394  36.759  1.00 95.42      7
ATOM   1092  CZ  ARG A 145       9.702  55.118  36.438  1.00 96.41      6
ATOM   1093  NH1 ARG A 145       9.433  54.447  35.325  1.00 95.91      7
ATOM   1094  NH2 ARG A 145       8.704  55.509  37.225  1.00 97.11      7
ATOM   1095  C   ARG A 145      16.487  56.995  35.484  1.00 61.07      6
ATOM   1096  O   ARG A 145      17.301  56.077  35.540  1.00 61.52      8
ATOM   1097  N   GLY A 146      16.665  58.158  36.103  1.00 50.34      7
ATOM   1098  CA  GLY A 146      17.858  58.386  36.897  1.00 49.87      6
ATOM   1099  C   GLY A 146      17.552  58.932  38.272  1.00 49.74      6
ATOM   1100  O   GLY A 146      16.400  58.953  38.706  1.00 49.96      8
ATOM   1101  N   VAL A 147      18.598  59.380  38.956  1.00 48.38      7
ATOM   1102  CA  VAL A 147      18.475  59.928  40.300  1.00 47.31      6
ATOM   1103  CB  VAL A 147      18.679  58.834  41.358  1.00 24.62      6
ATOM   1104  CG1 VAL A 147      18.986  59.458  42.698  1.00 25.16      6
ATOM   1105  CG2 VAL A 147      17.441  57.975  41.450  1.00 23.97      6
ATOM   1106  C   VAL A 147      19.507  61.013  40.537  1.00 46.92      6
ATOM   1107  O   VAL A 147      20.706  60.797  40.353  1.00 47.27      8
ATOM   1108  N   GLY A 148      19.038  62.179  40.951  1.00 41.92      7
ATOM   1109  CA  GLY A 148      19.952  63.271  41.210  1.00 42.13      6
ATOM   1110  C   GLY A 148      20.387  63.969  39.941  1.00 41.88      6
ATOM   1111  O   GLY A 148      19.615  64.060  38.989  1.00 41.60      8
```

```
ATOM   1112  N    TYR A 149      21.633  64.443  39.931  1.00 56.71      7
ATOM   1113  CA   TYR A 149      22.211  65.167  38.798  1.00 56.25      6
ATOM   1114  CB   TYR A 149      22.611  66.564  39.267  1.00 33.62      6
ATOM   1115  CG   TYR A 149      23.243  67.432  38.220  1.00 29.72      6
ATOM   1116  CD1  TYR A 149      22.743  67.479  36.925  1.00 27.89      6
ATOM   1117  CE1  TYR A 149      23.279  68.353  35.971  1.00 25.22      6
ATOM   1118  CD2  TYR A 149      24.300  68.274  38.542  1.00 28.71      6
ATOM   1119  CE2  TYR A 149      24.842  69.153  37.600  1.00 26.48      6
ATOM   1120  CZ   TYR A 149      24.323  69.188  36.318  1.00 24.38      6
ATOM   1121  OH   TYR A 149      24.840  70.082  35.409  1.00 20.70      8
ATOM   1122  C    TYR A 149      23.429  64.449  38.216  1.00 57.82      6
ATOM   1123  O    TYR A 149      24.454  64.334  38.884  1.00 58.18      8
ATOM   1124  N    VAL A 150      23.318  63.971  36.976  1.00 25.17      7
ATOM   1125  CA   VAL A 150      24.426  63.258  36.318  1.00 27.90      6
ATOM   1126  CB   VAL A 150      24.146  61.733  36.207  1.00 43.10      6
ATOM   1127  CG1  VAL A 150      25.343  61.022  35.593  1.00 43.85      6
ATOM   1128  CG2  VAL A 150      23.836  61.150  37.578  1.00 43.89      6
ATOM   1129  C    VAL A 150      24.683  63.794  34.915  1.00 30.48      6
ATOM   1130  O    VAL A 150      23.971  63.450  33.986  1.00 31.06      8
ATOM   1131  N    PRO A 151      25.715  64.642  34.754  1.00 54.43      7
ATOM   1132  CD   PRO A 151      26.346  65.312  35.904  1.00128.16      6
ATOM   1133  CA   PRO A 151      26.146  65.283  33.507  1.00 57.01      6
ATOM   1134  CB   PRO A 151      27.167  66.306  33.991  1.00129.50      6
ATOM   1135  CG   PRO A 151      26.658  66.665  35.336  1.00129.68      6
ATOM   1136  C    PRO A 151      26.716  64.407  32.387  1.00 59.77      6
ATOM   1137  O    PRO A 151      26.354  63.243  32.226  1.00 60.40      8
ATOM   1138  N    ALA A 152      27.615  65.001  31.611  1.00 72.84      7
ATOM   1139  CA   ALA A 152      28.259  64.345  30.478  1.00 76.09      6
ATOM   1140  CB   ALA A 152      29.206  65.329  29.774  1.00 20.79      6
ATOM   1141  C    ALA A 152      29.007  63.063  30.811  1.00 78.69      6
ATOM   1142  O    ALA A 152      29.763  62.562  29.983  1.00 79.51      8
ATOM   1143  N    GLU A 153      28.823  62.534  32.013  1.00107.48      7
ATOM   1144  CA   GLU A 153      29.483  61.283  32.357  1.00110.39      6
ATOM   1145  CB   GLU A 153      29.558  61.104  33.869  1.00169.79      6
ATOM   1146  CG   GLU A 153      29.938  59.697  34.286  1.00173.04      6
ATOM   1147  CD   GLU A 153      30.069  59.550  35.782  1.00175.00      6
ATOM   1148  OE1  GLU A 153      29.155  60.001  36.506  1.00175.25      8
ATOM   1149  OE2  GLU A 153      31.082  58.977  36.237  1.00176.25      8
ATOM   1150  C    GLU A 153      28.674  60.135  31.741  1.00110.83      6
ATOM   1151  O    GLU A 153      29.210  59.299  31.013  1.00110.62      8
ATOM   1152  N    ARG A 154      27.378  60.107  32.037  1.00163.36      7
ATOM   1153  CA   ARG A 154      26.486  59.080  31.509  1.00164.22      6
ATOM   1154  CB   ARG A 154      25.102  59.221  32.158  1.00114.78      6
ATOM   1155  CG   ARG A 154      24.054  58.215  31.684  1.00115.49      6
ATOM   1156  CD   ARG A 154      22.905  58.046  32.703  1.00115.63      6
ATOM   1157  NE   ARG A 154      23.354  57.411  33.947  1.00115.68      7
ATOM   1158  CZ   ARG A 154      22.563  57.085  34.968  1.00115.42      6
ATOM   1159  NH1  ARG A 154      21.261  57.329  34.912  1.00114.73      7
ATOM   1160  NH2  ARG A 154      23.080  56.515  36.051  1.00115.47      7
ATOM   1161  C    ARG A 154      26.387  59.257  29.997  1.00164.11      6
ATOM   1162  O    ARG A 154      25.448  59.885  29.504  1.00164.81      8
ATOM   1163  N    HIS A 155      27.353  58.698  29.267  1.00 75.45      7
ATOM   1164  CA   HIS A 155      27.383  58.827  27.810  1.00 74.77      6
ATOM   1165  CB   HIS A 155      28.447  57.910  27.201  1.00177.89      6
ATOM   1166  CG   HIS A 155      28.748  58.216  25.767  1.00178.95      6
ATOM   1167  CD2  HIS A 155      28.569  57.486  24.641  1.00179.71      6
```

21

ATOM	1168	ND1	HIS A 155	29.281	59.421	25.361	1.00179.47	7
ATOM	1169	CE1	HIS A 155	29.416	59.420	24.047	1.00179.70	6
ATOM	1170	NE2	HIS A 155	28.990	58.258	23.586	1.00179.98	7
ATOM	1171	C	HIS A 155	26.034	58.559	27.148	1.00 73.51	6
ATOM	1172	O	HIS A 155	25.253	57.708	27.594	1.00 72.88	8
ATOM	1173	N	GLY A 156	25.775	59.297	26.073	1.00 63.99	7
ATOM	1174	CA	GLY A 156	24.516	59.171	25.361	1.00 62.57	6
ATOM	1175	C	GLY A 156	24.550	58.229	24.184	1.00 61.40	6
ATOM	1176	O	GLY A 156	23.700	58.300	23.302	1.00 60.43	8
ATOM	1177	N	ILE A 157	25.542	57.349	24.182	1.00 73.01	7
ATOM	1178	CA	ILE A 157	25.707	56.357	23.135	1.00 72.98	6
ATOM	1179	CB	ILE A 157	26.239	55.025	23.747	1.00101.08	6
ATOM	1180	CG2	ILE A 157	25.403	54.632	24.964	1.00101.52	6
ATOM	1181	CG1	ILE A 157	26.255	53.924	22.688	1.00101.27	6
ATOM	1182	CD1	ILE A 157	26.917	52.644	23.140	1.00102.19	6
ATOM	1183	C	ILE A 157	24.409	56.117	22.353	1.00 72.00	6
ATOM	1184	O	ILE A 157	24.148	56.808	21.376	1.00 71.90	8
ATOM	1185	N	LYS A 158	23.588	55.166	22.795	1.00110.17	7
ATOM	1186	CA	LYS A 158	22.333	54.851	22.113	1.00108.68	6
ATOM	1187	CB	LYS A 158	21.270	55.916	22.390	1.00 97.31	6
ATOM	1188	CG	LYS A 158	20.297	55.551	23.491	1.00 97.28	6
ATOM	1189	CD	LYS A 158	19.567	54.257	23.177	1.00 96.09	6
ATOM	1190	CE	LYS A 158	18.590	53.895	24.290	1.00 94.87	6
ATOM	1191	NZ	LYS A 158	18.012	52.522	24.162	1.00 93.51	7
ATOM	1192	C	LYS A 158	22.520	54.727	20.609	1.00107.55	6
ATOM	1193	O	LYS A 158	22.982	53.697	20.115	1.00108.08	8
ATOM	1194	N	ASP A 159	22.164	55.790	19.889	1.00 59.19	7
ATOM	1195	CA	ASP A 159	22.263	55.839	18.426	1.00 57.80	6
ATOM	1196	CB	ASP A 159	21.589	57.125	17.907	1.00 86.33	6
ATOM	1197	CG	ASP A 159	21.011	56.968	16.505	1.00 85.93	6
ATOM	1198	OD1	ASP A 159	21.796	56.858	15.544	1.00 86.75	8
ATOM	1199	OD2	ASP A 159	19.768	56.950	16.363	1.00 84.74	8
ATOM	1200	C	ASP A 159	23.723	55.786	17.983	1.00 56.46	6
ATOM	1201	O	ASP A 159	24.054	56.164	16.866	1.00 55.59	8
ATOM	1202	N	ARG A 160	24.582	55.311	18.881	1.00 87.56	7
ATOM	1203	CA	ARG A 160	26.014	55.182	18.631	1.00 88.42	6
ATOM	1204	CB	ARG A 160	26.402	53.702	18.522	1.00102.75	6
ATOM	1205	CG	ARG A 160	26.715	53.008	19.844	1.00102.79	6
ATOM	1206	CD	ARG A 160	27.249	51.598	19.603	1.00102.12	6
ATOM	1207	NE	ARG A 160	27.592	50.890	20.833	1.00100.58	7
ATOM	1208	CZ	ARG A 160	28.112	49.668	20.860	1.00100.56	6
ATOM	1209	NH1	ARG A 160	28.347	49.025	19.725	1.00100.25	7
ATOM	1210	NH2	ARG A 160	28.400	49.085	22.014	1.00100.27	7
ATOM	1211	C	ARG A 160	26.528	55.907	17.393	1.00 87.57	6
ATOM	1212	O	ARG A 160	27.015	55.271	16.456	1.00 88.01	8
ATOM	1213	N	ILE A 161	26.424	57.230	17.374	1.00106.49	7
ATOM	1214	CA	ILE A 161	26.924	57.961	16.222	1.00104.57	6
ATOM	1215	CB	ILE A 161	26.176	57.570	14.931	1.00 48.58	6
ATOM	1216	CG2	ILE A 161	24.709	57.935	15.052	1.00 47.75	6
ATOM	1217	CG1	ILE A 161	26.816	58.289	13.731	1.00 48.28	6
ATOM	1218	CD1	ILE A 161	26.382	57.777	12.355	1.00 48.64	6
ATOM	1219	C	ILE A 161	26.851	59.464	16.347	1.00103.31	6
ATOM	1220	O	ILE A 161	27.860	60.161	16.218	1.00103.93	8
ATOM	1221	N	ASN A 162	25.651	59.964	16.597	1.00 73.05	7
ATOM	1222	CA	ASN A 162	25.453	61.396	16.686	1.00 70.40	6
ATOM	1223	CB	ASN A 162	24.800	61.873	15.392	1.00 45.57	6

22

ATOM	1224	CG	ASN A 162	25.310	61.112	14.168	1.00	45.25	6
ATOM	1225	OD1	ASN A 162	26.494	61.185	13.807	1.00	44.13	8
ATOM	1226	ND2	ASN A 162	24.412	60.371	13.528	1.00	44.20	7
ATOM	1227	C	ASN A 162	24.569	61.701	17.876	1.00	68.28	6
ATOM	1228	O	ASN A 162	23.898	62.728	17.924	1.00	68.79	8
ATOM	1229	N	ALA A 163	24.586	60.787	18.837	1.00	49.85	7
ATOM	1230	CA	ALA A 163	23.784	60.911	20.039	1.00	46.49	6
ATOM	1231	CB	ALA A 163	24.181	59.824	21.022	1.00	113.93	6
ATOM	1232	C	ALA A 163	23.876	62.279	20.709	1.00	43.84	6
ATOM	1233	O	ALA A 163	22.933	62.712	21.366	1.00	42.33	8
ATOM	1234	N	ILE A 164	25.003	62.960	20.550	1.00	44.78	7
ATOM	1235	CA	ILE A 164	25.183	64.267	21.171	1.00	41.25	6
ATOM	1236	CB	ILE A 164	24.538	65.390	20.309	1.00	14.84	6
ATOM	1237	CG2	ILE A 164	24.860	65.165	18.847	1.00	13.87	6
ATOM	1238	CG1	ILE A 164	23.023	65.399	20.465	1.00	13.87	6
ATOM	1239	CD1	ILE A 164	22.358	66.472	19.666	1.00	13.87	6
ATOM	1240	C	ILE A 164	24.560	64.289	22.570	1.00	40.59	6
ATOM	1241	O	ILE A 164	23.845	65.219	22.913	1.00	41.32	8
ATOM	1242	N	PRO A 165	24.867	63.282	23.407	1.00	38.68	7
ATOM	1243	CD	PRO A 165	26.175	62.626	23.304	1.00	32.21	6
ATOM	1244	CA	PRO A 165	24.358	63.127	24.778	1.00	37.84	6
ATOM	1245	CB	PRO A 165	25.469	62.357	25.478	1.00	31.90	6
ATOM	1246	CG	PRO A 165	26.670	62.746	24.710	1.00	31.31	6
ATOM	1247	C	PRO A 165	24.057	64.433	25.473	1.00	38.07	6
ATOM	1248	O	PRO A 165	24.861	65.366	25.398	1.00	38.33	8
ATOM	1249	N	VAL A 166	22.908	64.488	26.152	1.00	28.76	7
ATOM	1250	CA	VAL A 166	22.462	65.687	26.869	1.00	28.17	6
ATOM	1251	CB	VAL A 166	21.018	66.014	26.538	1.00	37.29	6
ATOM	1252	CG1	VAL A 166	20.639	67.328	27.174	1.00	37.95	6
ATOM	1253	CG2	VAL A 166	20.830	66.045	25.056	1.00	37.42	6
ATOM	1254	C	VAL A 166	22.532	65.548	28.384	1.00	28.88	6
ATOM	1255	O	VAL A 166	22.344	64.452	28.927	1.00	29.93	8
ATOM	1256	N	ASP A 167	22.780	66.659	29.070	1.00	27.15	7
ATOM	1257	CA	ASP A 167	22.847	66.627	30.525	1.00	28.82	6
ATOM	1258	CB	ASP A 167	23.131	68.019	31.079	1.00	55.43	6
ATOM	1259	CG	ASP A 167	24.512	68.503	30.750	1.00	56.58	6
ATOM	1260	OD1	ASP A 167	25.452	67.682	30.781	1.00	57.79	8
ATOM	1261	OD2	ASP A 167	24.654	69.709	30.478	1.00	55.60	8
ATOM	1262	C	ASP A 167	21.540	66.119	31.133	1.00	28.92	6
ATOM	1263	O	ASP A 167	20.459	66.350	30.589	1.00	29.75	8
ATOM	1264	N	ALA A 168	21.632	65.448	32.271	1.00	33.33	7
ATOM	1265	CA	ALA A 168	20.445	64.928	32.920	1.00	35.59	6
ATOM	1266	CB	ALA A 168	20.649	63.459	33.243	1.00	46.87	6
ATOM	1267	C	ALA A 168	20.098	65.700	34.193	1.00	37.01	6
ATOM	1268	O	ALA A 168	20.974	66.214	34.871	1.00	37.01	8
ATOM	1269	N	ILE A 169	18.810	65.789	34.500	1.00	41.48	7
ATOM	1270	CA	ILE A 169	18.325	66.460	35.702	1.00	43.82	6
ATOM	1271	CB	ILE A 169	17.784	67.873	35.411	1.00	66.79	6
ATOM	1272	CG2	ILE A 169	17.951	68.745	36.637	1.00	67.21	6
ATOM	1273	CG1	ILE A 169	18.515	68.500	34.224	1.00	68.86	6
ATOM	1274	CD1	ILE A 169	19.952	68.843	34.495	1.00	71.35	6
ATOM	1275	C	ILE A 169	17.141	65.592	36.096	1.00	44.59	6
ATOM	1276	O	ILE A 169	16.015	65.859	35.670	1.00	45.12	8
ATOM	1277	N	PHE A 170	17.395	64.559	36.895	1.00	61.53	7
ATOM	1278	CA	PHE A 170	16.356	63.613	37.308	1.00	63.83	6
ATOM	1279	CB	PHE A 170	17.021	62.303	37.715	1.00	95.45	6

```
ATOM   1280  CG   PHE A 170    17.810  61.673  36.614  1.00  98.05       6
ATOM   1281  CD1  PHE A 170    17.184  61.259  35.450  1.00  97.88       6
ATOM   1282  CD2  PHE A 170    19.182  61.512  36.728  1.00  99.39       6
ATOM   1283  CE1  PHE A 170    17.914  60.693  34.418  1.00  97.26       6
ATOM   1284  CE2  PHE A 170    19.921  60.946  35.699  1.00  98.86       6
ATOM   1285  CZ   PHE A 170    19.288  60.539  34.544  1.00  97.30       6
ATOM   1286  C    PHE A 170    15.333  64.023  38.378  1.00  64.23       6
ATOM   1287  O    PHE A 170    14.134  63.787  38.207  1.00  64.72       8
ATOM   1288  N    SER A 171    15.785  64.620  39.476  1.00  39.73       7
ATOM   1289  CA   SER A 171    14.868  65.024  40.540  1.00  38.09       6
ATOM   1290  CB   SER A 171    15.535  66.065  41.444  1.00  78.49       6
ATOM   1291  OG   SER A 171    14.693  66.419  42.525  1.00  80.28       8
ATOM   1292  C    SER A 171    13.556  65.592  39.987  1.00  35.93       6
ATOM   1293  O    SER A 171    13.555  66.540  39.201  1.00  36.51       8
ATOM   1294  N    PRO A 172    12.419  64.991  40.369  1.00  48.33       7
ATOM   1295  CD   PRO A 172    12.324  63.681  41.039  1.00  44.87       6
ATOM   1296  CA   PRO A 172    11.098  65.448  39.916  1.00  47.93       6
ATOM   1297  CB   PRO A 172    10.238  64.206  40.068  1.00  43.94       6
ATOM   1298  CG   PRO A 172    10.838  63.550  41.291  1.00  44.29       6
ATOM   1299  C    PRO A 172    10.631  66.582  40.814  1.00  46.83       6
ATOM   1300  O    PRO A 172     9.736  67.335  40.472  1.00  47.00       8
ATOM   1301  N    VAL A 173    11.252  66.679  41.982  1.00  41.35       7
ATOM   1302  CA   VAL A 173    10.950  67.721  42.952  1.00  40.25       6
ATOM   1303  CB   VAL A 173    11.693  67.420  44.270  1.00  29.43       6
ATOM   1304  CG1  VAL A 173    11.439  68.512  45.283  1.00  30.41       6
ATOM   1305  CG2  VAL A 173    11.245  66.063  44.815  1.00  27.70       6
ATOM   1306  C    VAL A 173    11.445  69.031  42.342  1.00  39.45       6
ATOM   1307  O    VAL A 173    12.603  69.127  41.955  1.00  39.32       8
ATOM   1308  N    ARG A 174    10.589  70.038  42.237  1.00  59.70       7
ATOM   1309  CA   ARG A 174    11.034  71.288  41.625  1.00  62.26       6
ATOM   1310  CB   ARG A 174    10.105  71.677  40.469  1.00 140.03       6
ATOM   1311  CG   ARG A 174    10.243  70.821  39.208  1.00 144.79       6
ATOM   1312  CD   ARG A 174    11.541  71.100  38.433  1.00 149.38       6
ATOM   1313  NE   ARG A 174    11.635  70.294  37.212  1.00 151.23       7
ATOM   1314  CZ   ARG A 174    12.669  70.302  36.373  1.00 151.78       6
ATOM   1315  NH1  ARG A 174    13.719  71.079  36.609  1.00 152.98       7
ATOM   1316  NH2  ARG A 174    12.658  69.523  35.298  1.00 151.43       7
ATOM   1317  C    ARG A 174    11.190  72.490  42.555  1.00  61.59       6
ATOM   1318  O    ARG A 174    11.310  73.619  42.079  1.00  60.56       8
ATOM   1319  N    ARG A 175    11.207  72.252  43.865  1.00  50.49       7
ATOM   1320  CA   ARG A 175    11.345  73.323  44.853  1.00  48.86       6
ATOM   1321  CB   ARG A 175    10.736  74.609  44.312  1.00  54.88       6
ATOM   1322  CG   ARG A 175    10.585  75.698  45.317  1.00  54.77       6
ATOM   1323  CD   ARG A 175    10.180  76.974  44.623  1.00  53.43       6
ATOM   1324  NE   ARG A 175     9.537  77.896  45.545  1.00  53.72       7
ATOM   1325  CZ   ARG A 175     9.203  79.137  45.232  1.00  53.04       6
ATOM   1326  NH1  ARG A 175     9.464  79.596  44.017  1.00  53.52       7
ATOM   1327  NH2  ARG A 175     8.591  79.908  46.122  1.00  52.20       7
ATOM   1328  C    ARG A 175    10.610  72.895  46.109  1.00  48.09       6
ATOM   1329  O    ARG A 175     9.603  72.218  46.010  1.00  49.40       8
ATOM   1330  N    VAL A 176    11.104  73.282  47.282  1.00  34.91       7
ATOM   1331  CA   VAL A 176    10.473  72.902  48.552  1.00  35.21       6
ATOM   1332  CB   VAL A 176    10.989  71.547  49.077  1.00  13.87       6
ATOM   1333  CG1  VAL A 176    10.037  71.013  50.122  1.00  13.87       6
ATOM   1334  CG2  VAL A 176    11.208  70.567  47.947  1.00  13.87       6
ATOM   1335  C    VAL A 176    10.769  73.881  49.683  1.00  36.88       6
```

```
ATOM   1336  O    VAL A 176      11.909  74.302  49.860  1.00  37.11      8
ATOM   1337  N    ALA A 177       9.752  74.213  50.468  1.00  45.24      7
ATOM   1338  CA   ALA A 177       9.925  75.106  51.619  1.00  47.00      6
ATOM   1339  CB   ALA A 177       9.479  76.520  51.272  1.00  36.43      6
ATOM   1340  C    ALA A 177       9.082  74.553  52.769  1.00  48.64      6
ATOM   1341  O    ALA A 177       8.533  73.459  52.661  1.00  48.85      8
ATOM   1342  N    PHE A 178       8.983  75.282  53.873  1.00  98.12      7
ATOM   1343  CA   PHE A 178       8.156  74.790  54.961  1.00 100.59      6
ATOM   1344  CB   PHE A 178       8.641  73.404  55.393  1.00  40.54      6
ATOM   1345  CG   PHE A 178       9.908  73.401  56.184  1.00  42.13      6
ATOM   1346  CD1  PHE A 178       9.878  73.537  57.567  1.00  42.94      6
ATOM   1347  CD2  PHE A 178      11.126  73.173  55.563  1.00  43.85      6
ATOM   1348  CE1  PHE A 178      11.046  73.437  58.325  1.00  46.29      6
ATOM   1349  CE2  PHE A 178      12.304  73.071  56.311  1.00  46.44      6
ATOM   1350  CZ   PHE A 178      12.263  73.200  57.696  1.00  47.46      6
ATOM   1351  C    PHE A 178       8.020  75.719  56.154  1.00 103.23      6
ATOM   1352  O    PHE A 178       8.988  75.976  56.866  1.00 105.47      8
ATOM   1353  N    GLN A 179       6.803  76.224  56.359  1.00  36.08      7
ATOM   1354  CA   GLN A 179       6.512  77.136  57.459  1.00  37.00      6
ATOM   1355  CB   GLN A 179       5.137  77.766  57.254  1.00  92.61      6
ATOM   1356  CG   GLN A 179       4.987  78.522  55.951  1.00  96.35      6
ATOM   1357  CD   GLN A 179       5.787  79.805  55.924  1.00  99.08      6
ATOM   1358  OE1  GLN A 179       7.015  79.782  55.942  1.00 101.45      8
ATOM   1359  NE2  GLN A 179       5.090  80.938  55.889  1.00  99.95      7
ATOM   1360  C    GLN A 179       6.536  76.385  58.784  1.00  37.83      6
ATOM   1361  O    GLN A 179       6.288  75.183  58.822  1.00  38.53      8
ATOM   1362  N    VAL A 180       6.852  77.085  59.869  1.00  74.13      7
ATOM   1363  CA   VAL A 180       6.873  76.453  61.180  1.00  76.69      6
ATOM   1364  CB   VAL A 180       8.290  76.399  61.781  1.00  62.85      6
ATOM   1365  CG1  VAL A 180       8.292  75.548  63.055  1.00  62.38      6
ATOM   1366  CG2  VAL A 180       9.256  75.814  60.773  1.00  63.79      6
ATOM   1367  C    VAL A 180       5.977  77.248  62.110  1.00  78.88      6
ATOM   1368  O    VAL A 180       6.244  77.347  63.307  1.00  79.49      8
ATOM   1369  N    GLU A 181       4.912  77.809  61.539  1.00  79.29      7
ATOM   1370  CA   GLU A 181       3.934  78.610  62.270  1.00  81.32      6
ATOM   1371  CB   GLU A 181       2.627  78.668  61.501  1.00  65.76      6
ATOM   1372  CG   GLU A 181       2.766  79.155  60.093  1.00  67.56      6
ATOM   1373  CD   GLU A 181       1.498  78.947  59.293  1.00  68.61      6
ATOM   1374  OE1  GLU A 181       0.434  79.440  59.728  1.00  69.63      8
ATOM   1375  OE2  GLU A 181       1.565  78.289  58.231  1.00  68.52      8
ATOM   1376  C    GLU A 181       3.627  78.068  63.652  1.00  83.63      6
ATOM   1377  O    GLU A 181       3.874  76.899  63.955  1.00  84.41      8
ATOM   1378  N    ASP A 182       3.071  78.937  64.483  1.00  72.84      7
ATOM   1379  CA   ASP A 182       2.684  78.576  65.833  1.00  75.42      6
ATOM   1380  CB   ASP A 182       3.601  79.262  66.848  1.00 117.68      6
ATOM   1381  CG   ASP A 182       3.544  80.775  66.762  1.00 118.15      6
ATOM   1382  OD1  ASP A 182       3.541  81.309  65.631  1.00 117.09      8
ATOM   1383  OD2  ASP A 182       3.514  81.427  67.828  1.00 117.92      8
ATOM   1384  C    ASP A 182       1.252  79.068  65.974  1.00  77.55      6
ATOM   1385  O    ASP A 182       1.010  80.273  66.022  1.00  78.76      8
ATOM   1386  N    THR A 183       0.303  78.136  65.998  1.00 102.76      7
ATOM   1387  CA   THR A 183      -1.110  78.488  66.117  1.00 104.69      6
ATOM   1388  CB   THR A 183      -1.682  79.018  64.790  1.00  68.16      6
ATOM   1389  OG1  THR A 183      -3.077  79.308  64.966  1.00  69.31      8
ATOM   1390  CG2  THR A 183      -1.505  77.982  63.670  1.00  68.00      6
ATOM   1391  C    THR A 183      -1.938  77.285  66.519  1.00 106.50      6
```

25

```
ATOM   1392  O    THR A 183    -2.896  76.922  65.835  1.00106.41     8
ATOM   1393  N    ARG A 184    -1.575  76.674  67.638  1.00139.74     7
ATOM   1394  CA   ARG A 184    -2.292  75.505  68.101  1.00 97.52     6
ATOM   1395  CB   ARG A 184    -1.407  74.268  67.905  1.00 98.60     6
ATOM   1396  CG   ARG A 184    -0.950  74.092  66.450  1.00 99.55     6
ATOM   1397  CD   ARG A 184    -2.150  74.213  65.501  1.00 99.55     6
ATOM   1398  NE   ARG A 184    -1.814  74.104  64.082  1.00100.02     7
ATOM   1399  CZ   ARG A 184    -2.697  74.265  63.100  1.00 99.96     6
ATOM   1400  NH1  ARG A 184    -3.961  74.545  63.382  1.00 99.41     7
ATOM   1401  NH2  ARG A 184    -2.326  74.127  61.837  1.00100.11     7
ATOM   1402  C    ARG A 184    -2.717  75.663  69.554  1.00142.96     6
ATOM   1403  O    ARG A 184    -2.285  76.593  70.232  1.00143.20     8
ATOM   1404  N    ALA A 185    -3.578  74.769  70.026  1.00187.75     7
ATOM   1405  CA   ALA A 185    -4.043  74.836  71.405  1.00188.97     6
ATOM   1406  CB   ALA A 185    -5.543  74.605  71.462  1.00138.79     6
ATOM   1407  C    ALA A 185    -3.316  73.806  72.260  1.00189.46     6
ATOM   1408  O    ALA A 185    -3.080  74.034  73.448  1.00190.37     8
ATOM   1409  N    GLY A 186    -2.968  72.680  71.639  1.00113.15     7
ATOM   1410  CA   GLY A 186    -2.262  71.609  72.321  1.00111.99     6
ATOM   1411  C    GLY A 186    -2.071  71.790  73.815  1.00112.66     6
ATOM   1412  O    GLY A 186    -2.942  71.421  74.601  1.00112.80     8
ATOM   1413  N    GLN A 187    -0.934  72.360  74.209  1.00115.28     7
ATOM   1414  CA   GLN A 187    -0.628  72.584  75.621  1.00115.21     6
ATOM   1415  CB   GLN A 187    -0.019  71.318  76.236  1.00172.74     6
ATOM   1416  CG   GLN A 187    -0.943  70.103  76.187  1.00174.52     6
ATOM   1417  CD   GLN A 187    -0.394  68.908  76.942  1.00175.30     6
ATOM   1418  OE1  GLN A 187     0.693  68.415  76.643  1.00176.13     8
ATOM   1419  NE2  GLN A 187    -1.149  68.431  77.924  1.00175.29     7
ATOM   1420  C    GLN A 187     0.338  73.752  75.790  1.00115.15     6
ATOM   1421  O    GLN A 187     1.550  73.580  75.696  1.00115.42     8
ATOM   1422  N    ARG A 188    -0.207  74.936  76.049  1.00172.13     7
ATOM   1423  CA   ARG A 188     0.599  76.141  76.227  1.00170.84     6
ATOM   1424  CB   ARG A 188     1.701  75.908  77.268  1.00192.51     6
ATOM   1425  CG   ARG A 188     2.709  77.045  77.374  1.00194.75     6
ATOM   1426  CD   ARG A 188     3.794  76.741  78.391  1.00197.08     6
ATOM   1427  NE   ARG A 188     4.826  77.771  78.390  1.00200.84     7
ATOM   1428  CZ   ARG A 188     5.871  77.781  79.208  1.00202.51     6
ATOM   1429  NH1  ARG A 188     6.025  76.811  80.100  1.00204.00     7
ATOM   1430  NH2  ARG A 188     6.765  78.759  79.134  1.00202.86     7
ATOM   1431  C    ARG A 188     1.230  76.544  74.903  1.00169.28     6
ATOM   1432  O    ARG A 188     2.128  75.865  74.409  1.00168.87     8
ATOM   1433  N    THR A 189     0.750  77.649  74.338  1.00187.44     7
ATOM   1434  CA   THR A 189     1.259  78.160  73.069  1.00184.73     6
ATOM   1435  CB   THR A 189     0.939  79.662  72.903  1.00190.85     6
ATOM   1436  OG1  THR A 189    -0.479  79.859  72.975  1.00191.29     8
ATOM   1437  CG2  THR A 189     1.445  80.172  71.559  1.00190.83     6
ATOM   1438  C    THR A 189     2.768  77.970  73.008  1.00183.57     6
ATOM   1439  O    THR A 189     3.528  78.815  73.482  1.00183.68     8
ATOM   1440  N    ASP A 190     3.191  76.852  72.424  1.00 96.77     7
ATOM   1441  CA   ASP A 190     4.606  76.525  72.301  1.00 93.47     6
ATOM   1442  CB   ASP A 190     5.046  75.638  73.464  1.00145.73     6
ATOM   1443  CG   ASP A 190     5.658  76.419  74.598  1.00147.45     6
ATOM   1444  OD1  ASP A 190     6.643  77.144  74.345  1.00148.52     8
ATOM   1445  OD2  ASP A 190     5.163  76.301  75.741  1.00147.80     8
ATOM   1446  C    ASP A 190     4.863  75.785  71.003  1.00 92.04     6
ATOM   1447  O    ASP A 190     5.592  76.265  70.139  1.00 92.19     8
```

26

ATOM	1448	N	LEU	A	191	4.253	74.608	70.902	1.00	81.88	7
ATOM	1449	CA	LEU	A	191	4.351	73.704	69.753	1.00	78.93	6
ATOM	1450	CB	LEU	A	191	3.047	72.923	69.620	1.00	86.98	6
ATOM	1451	CG	LEU	A	191	2.224	72.796	70.898	1.00	87.57	6
ATOM	1452	CD1	LEU	A	191	0.873	72.186	70.565	1.00	88.40	6
ATOM	1453	CD2	LEU	A	191	2.981	71.956	71.911	1.00	88.35	6
ATOM	1454	C	LEU	A	191	4.661	74.334	68.391	1.00	76.05	6
ATOM	1455	O	LEU	A	191	4.416	75.519	68.158	1.00	75.94	8
ATOM	1456	N	ASP	A	192	5.198	73.520	67.487	1.00	94.98	7
ATOM	1457	CA	ASP	A	192	5.495	73.991	66.142	1.00	90.90	6
ATOM	1458	CB	ASP	A	192	6.811	73.386	65.580	1.00	64.72	6
ATOM	1459	CG	ASP	A	192	7.920	73.233	66.627	1.00	64.42	6
ATOM	1460	OD1	ASP	A	192	8.246	74.208	67.333	1.00	65.46	8
ATOM	1461	OD2	ASP	A	192	8.486	72.123	66.725	1.00	62.37	8
ATOM	1462	C	ASP	A	192	4.328	73.486	65.289	1.00	88.07	6
ATOM	1463	O	ASP	A	192	3.627	72.550	65.676	1.00	87.89	8
ATOM	1464	N	LYS	A	193	4.108	74.121	64.147	1.00	18.48	7
ATOM	1465	CA	LYS	A	193	3.075	73.685	63.230	1.00	13.87	6
ATOM	1466	CB	LYS	A	193	2.039	74.782	62.995	1.00	68.35	6
ATOM	1467	CG	LYS	A	193	1.084	74.454	61.853	1.00	70.13	6
ATOM	1468	CD	LYS	A	193	0.278	75.654	61.402	1.00	71.76	6
ATOM	1469	CE	LYS	A	193	-0.453	75.341	60.102	1.00	72.69	6
ATOM	1470	NZ	LYS	A	193	-1.416	76.411	59.712	1.00	74.05	7
ATOM	1471	C	LYS	A	193	3.772	73.356	61.905	1.00	13.87	6
ATOM	1472	O	LYS	A	193	3.733	74.134	60.954	1.00	13.87	8
ATOM	1473	N	LEU	A	194	4.411	72.194	61.837	1.00	49.50	7
ATOM	1474	CA	LEU	A	194	5.113	71.801	60.619	1.00	47.28	6
ATOM	1475	CB	LEU	A	194	5.700	70.408	60.779	1.00	40.96	6
ATOM	1476	CG	LEU	A	194	7.002	70.187	60.018	1.00	40.77	6
ATOM	1477	CD1	LEU	A	194	7.432	68.770	60.271	1.00	42.47	6
ATOM	1478	CD2	LEU	A	194	6.838	70.435	58.534	1.00	40.79	6
ATOM	1479	C	LEU	A	194	4.164	71.819	59.436	1.00	45.66	6
ATOM	1480	O	LEU	A	194	2.980	71.566	59.582	1.00	46.31	8
ATOM	1481	N	THR	A	195	4.673	72.115	58.255	1.00	23.66	7
ATOM	1482	CA	THR	A	195	3.795	72.156	57.112	1.00	23.58	6
ATOM	1483	CB	THR	A	195	2.764	73.333	57.272	1.00	47.51	6
ATOM	1484	OG1	THR	A	195	2.457	73.916	55.999	1.00	49.59	8
ATOM	1485	CG2	THR	A	195	3.307	74.398	58.183	1.00	49.19	6
ATOM	1486	C	THR	A	195	4.558	72.275	55.797	1.00	21.65	6
ATOM	1487	O	THR	A	195	4.413	73.270	55.077	1.00	20.96	8
ATOM	1488	N	LEU	A	196	5.359	71.260	55.459	1.00	13.87	7
ATOM	1489	CA	LEU	A	196	6.118	71.336	54.215	1.00	13.87	6
ATOM	1490	CB	LEU	A	196	7.198	70.268	54.118	1.00	13.87	6
ATOM	1491	CG	LEU	A	196	6.915	68.823	54.431	1.00	13.87	6
ATOM	1492	CD1	LEU	A	196	8.258	68.110	54.425	1.00	13.87	6
ATOM	1493	CD2	LEU	A	196	6.243	68.678	55.787	1.00	13.87	6
ATOM	1494	C	LEU	A	196	5.203	71.269	53.046	1.00	13.87	6
ATOM	1495	O	LEU	A	196	4.114	70.728	53.130	1.00	13.87	8
ATOM	1496	N	ARG	A	197	5.661	71.821	51.941	1.00	47.25	7
ATOM	1497	CA	ARG	A	197	4.821	71.899	50.775	1.00	51.20	6
ATOM	1498	CB	ARG	A	197	4.641	73.395	50.462	1.00	48.70	6
ATOM	1499	CG	ARG	A	197	4.293	74.237	51.717	1.00	48.34	6
ATOM	1500	CD	ARG	A	197	3.537	75.533	51.379	1.00	47.12	6
ATOM	1501	NE	ARG	A	197	4.399	76.676	51.091	1.00	46.27	7
ATOM	1502	CZ	ARG	A	197	3.991	77.799	50.504	1.00	46.69	6
ATOM	1503	NH1	ARG	A	197	2.733	77.943	50.128	1.00	46.72	7

27

ATOM	1504	NH2	ARG	A	197	4.842	78.793	50.303	1.00 46.95	7
ATOM	1505	C	ARG	A	197	5.201	71.099	49.512	1.00 52.55	6
ATOM	1506	O	ARG	A	197	4.357	70.908	48.627	1.00 52.73	8
ATOM	1507	N	ILE	A	198	6.433	70.595	49.435	1.00 26.26	7
ATOM	1508	CA	ILE	A	198	6.870	69.860	48.251	1.00 27.90	6
ATOM	1509	CB	ILE	A	198	6.540	68.363	48.304	1.00 33.44	6
ATOM	1510	CG2	ILE	A	198	6.900	67.725	46.961	1.00 33.55	6
ATOM	1511	CG1	ILE	A	198	7.342	67.658	49.403	1.00 33.58	6
ATOM	1512	CD1	ILE	A	198	6.944	68.011	50.806	1.00 36.15	6
ATOM	1513	C	ILE	A	198	6.162	70.441	47.045	1.00 29.28	6
ATOM	1514	O	ILE	A	198	5.218	69.867	46.534	1.00 28.51	8
ATOM	1515	N	TRP	A	199	6.616	71.608	46.620	1.00 70.20	7
ATOM	1516	CA	TRP	A	199	6.053	72.300	45.476	1.00 74.84	6
ATOM	1517	CB	TRP	A	199	6.808	73.591	45.261	1.00 66.80	6
ATOM	1518	CG	TRP	A	199	5.977	74.760	44.961	1.00 67.13	6
ATOM	1519	CD2	TRP	A	199	6.068	76.032	45.592	1.00 67.77	6
ATOM	1520	CE2	TRP	A	199	5.173	76.891	44.927	1.00 68.77	6
ATOM	1521	CE3	TRP	A	199	6.827	76.534	46.656	1.00 67.48	6
ATOM	1522	CD1	TRP	A	199	5.051	74.881	43.971	1.00 67.47	6
ATOM	1523	NE1	TRP	A	199	4.563	76.162	43.938	1.00 68.79	7
ATOM	1524	CZ2	TRP	A	199	5.013	78.236	45.293	1.00 69.60	6
ATOM	1525	CZ3	TRP	A	199	6.672	77.862	47.018	1.00 68.06	6
ATOM	1526	CH2	TRP	A	199	5.773	78.700	46.339	1.00 69.07	6
ATOM	1527	C	TRP	A	199	6.181	71.445	44.222	1.00 77.11	6
ATOM	1528	O	TRP	A	199	6.307	70.227	44.299	1.00 78.95	8
ATOM	1529	N	THR	A	200	6.179	72.120	43.075	1.00 59.51	7
ATOM	1530	CA	THR	A	200	6.264	71.507	41.746	1.00 61.97	6
ATOM	1531	CB	THR	A	200	6.925	72.484	40.735	1.00108.21	6
ATOM	1532	OG1	THR	A	200	6.202	73.720	40.724	1.00108.86	8
ATOM	1533	CG2	THR	A	200	6.921	71.898	39.330	1.00109.30	6
ATOM	1534	C	THR	A	200	6.990	70.163	41.638	1.00 61.64	6
ATOM	1535	O	THR	A	200	7.902	69.851	42.413	1.00 61.28	8
ATOM	1536	N	ASP	A	201	6.569	69.368	40.661	1.00 26.09	7
ATOM	1537	CA	ASP	A	201	7.185	68.082	40.413	1.00 27.98	6
ATOM	1538	CB	ASP	A	201	6.372	66.988	41.076	1.00 68.36	6
ATOM	1539	CG	ASP	A	201	6.389	67.104	42.566	1.00 71.72	6
ATOM	1540	OD1	ASP	A	201	5.887	68.124	43.072	1.00 73.07	8
ATOM	1541	OD2	ASP	A	201	6.903	66.181	43.232	1.00 73.40	8
ATOM	1542	C	ASP	A	201	7.372	67.772	38.922	1.00 29.33	6
ATOM	1543	O	ASP	A	201	6.637	68.285	38.057	1.00 29.41	8
ATOM	1544	N	GLY	A	202	8.379	66.952	38.621	1.00 97.53	7
ATOM	1545	CA	GLY	A	202	8.616	66.570	37.247	1.00 98.37	6
ATOM	1546	C	GLY	A	202	7.383	65.788	36.850	1.00 99.53	6
ATOM	1547	O	GLY	A	202	6.434	66.341	36.283	1.00 99.89	8
ATOM	1548	N	SER	A	203	7.382	64.501	37.187	1.00102.96	7
ATOM	1549	CA	SER	A	203	6.258	63.625	36.882	1.00101.80	6
ATOM	1550	CB	SER	A	203	6.750	62.365	36.168	1.00 86.92	6
ATOM	1551	OG	SER	A	203	7.569	61.575	37.014	1.00 84.76	8
ATOM	1552	C	SER	A	203	5.495	63.228	38.145	1.00101.29	6
ATOM	1553	O	SER	A	203	4.282	63.427	38.219	1.00101.42	8
ATOM	1554	N	VAL	A	204	6.212	62.687	39.133	1.00 55.39	7
ATOM	1555	CA	VAL	A	204	5.602	62.243	40.385	1.00 53.33	6
ATOM	1556	CB	VAL	A	204	6.618	61.599	41.316	1.00 24.32	6
ATOM	1557	CG1	VAL	A	204	7.507	60.687	40.546	1.00 23.40	6
ATOM	1558	CG2	VAL	A	204	7.383	62.654	42.044	1.00 23.67	6
ATOM	1559	C	VAL	A	204	4.858	63.288	41.210	1.00 52.68	6

28

ATOM	1560	O	VAL	A	204	4.943	64.493	40.965	1.00	52.37	8
ATOM	1561	N	THR	A	205	4.151	62.786	42.217	1.00	48.41	7
ATOM	1562	CA	THR	A	205	3.329	63.592	43.095	1.00	48.06	6
ATOM	1563	CB	THR	A	205	2.014	62.892	43.336	1.00	81.95	6
ATOM	1564	OG1	THR	A	205	1.553	62.352	42.094	1.00	84.75	8
ATOM	1565	CG2	THR	A	205	0.983	63.861	43.882	1.00	82.63	6
ATOM	1566	C	THR	A	205	3.979	63.857	44.434	1.00	46.17	6
ATOM	1567	O	THR	A	205	4.649	62.995	44.989	1.00	45.62	8
ATOM	1568	N	PRO	A	206	3.767	65.065	44.980	1.00	35.54	7
ATOM	1569	CD	PRO	A	206	3.005	66.193	44.404	1.00	15.27	6
ATOM	1570	CA	PRO	A	206	4.339	65.450	46.265	1.00	36.44	6
ATOM	1571	CB	PRO	A	206	3.639	66.763	46.551	1.00	14.81	6
ATOM	1572	CG	PRO	A	206	3.532	67.360	45.175	1.00	13.87	6
ATOM	1573	C	PRO	A	206	4.128	64.415	47.349	1.00	36.97	6
ATOM	1574	O	PRO	A	206	5.055	64.086	48.074	1.00	36.90	8
ATOM	1575	N	LEU	A	207	2.912	63.898	47.461	1.00	83.40	7
ATOM	1576	CA	LEU	A	207	2.622	62.891	48.473	1.00	85.60	6
ATOM	1577	CB	LEU	A	207	1.172	62.415	48.362	1.00	141.23	6
ATOM	1578	CG	LEU	A	207	0.790	61.243	49.272	1.00	141.75	6
ATOM	1579	CD1	LEU	A	207	1.127	61.575	50.723	1.00	141.73	6
ATOM	1580	CD2	LEU	A	207	-0.690	60.937	49.107	1.00	142.22	6
ATOM	1581	C	LEU	A	207	3.566	61.712	48.284	1.00	85.87	6
ATOM	1582	O	LEU	A	207	3.850	60.975	49.225	1.00	86.19	8
ATOM	1583	N	GLU	A	208	4.046	61.542	47.055	1.00	68.68	7
ATOM	1584	CA	GLU	A	208	4.967	60.459	46.736	1.00	68.93	6
ATOM	1585	CB	GLU	A	208	4.865	60.109	45.242	1.00	99.32	6
ATOM	1586	CG	GLU	A	208	3.421	59.967	44.737	1.00	99.03	6
ATOM	1587	CD	GLU	A	208	3.320	59.389	43.328	1.00	99.46	6
ATOM	1588	OE1	GLU	A	208	3.687	58.209	43.142	1.00	99.84	8
ATOM	1589	OE2	GLU	A	208	2.872	60.111	42.406	1.00	99.14	8
ATOM	1590	C	GLU	A	208	6.378	60.936	47.103	1.00	68.54	6
ATOM	1591	O	GLU	A	208	7.150	60.215	47.741	1.00	67.68	8
ATOM	1592	N	ALA	A	209	6.710	62.159	46.701	1.00	75.76	7
ATOM	1593	CA	ALA	A	209	8.007	62.720	47.038	1.00	75.57	6
ATOM	1594	CB	ALA	A	209	8.098	64.190	46.570	1.00	13.87	6
ATOM	1595	C	ALA	A	209	8.041	62.631	48.560	1.00	75.45	6
ATOM	1596	O	ALA	A	209	8.779	61.831	49.128	1.00	75.66	8
ATOM	1597	N	LEU	A	210	7.204	63.438	49.205	1.00	70.26	7
ATOM	1598	CA	LEU	A	210	7.089	63.467	50.658	1.00	69.79	6
ATOM	1599	CB	LEU	A	210	5.782	64.151	51.057	1.00	48.86	6
ATOM	1600	CG	LEU	A	210	5.176	63.720	52.392	1.00	48.50	6
ATOM	1601	CD1	LEU	A	210	6.079	64.139	53.540	1.00	48.16	6
ATOM	1602	CD2	LEU	A	210	3.789	64.321	52.526	1.00	49.32	6
ATOM	1603	C	LEU	A	210	7.133	62.071	51.277	1.00	69.96	6
ATOM	1604	O	LEU	A	210	7.604	61.901	52.407	1.00	69.73	8
ATOM	1605	N	ASN	A	211	6.627	61.080	50.544	1.00	88.32	7
ATOM	1606	CA	ASN	A	211	6.612	59.699	51.031	1.00	88.59	6
ATOM	1607	CB	ASN	A	211	5.539	58.874	50.302	1.00	54.35	6
ATOM	1608	CG	ASN	A	211	4.257	58.734	51.111	1.00	53.18	6
ATOM	1609	OD1	ASN	A	211	3.169	59.092	50.650	1.00	51.67	8
ATOM	1610	ND2	ASN	A	211	4.384	58.209	52.330	1.00	53.78	7
ATOM	1611	C	ASN	A	211	7.974	59.063	50.826	1.00	88.51	6
ATOM	1612	O	ASN	A	211	8.679	58.750	51.785	1.00	88.15	8
ATOM	1613	N	GLN	A	212	8.335	58.877	49.563	1.00	102.24	7
ATOM	1614	CA	GLN	A	212	9.617	58.296	49.202	1.00	102.01	6
ATOM	1615	CB	GLN	A	212	9.923	58.634	47.745	1.00	132.93	6

```
ATOM   1616  CG   GLN A 212     10.206  57.438  46.870  1.00135.91      6
ATOM   1617  CD   GLN A 212      9.778  57.674  45.438  1.00138.12      6
ATOM   1618  OE1  GLN A 212     10.162  58.665  44.816  1.00138.09      8
ATOM   1619  NE2  GLN A 212      8.976  56.762  44.904  1.00139.89      7
ATOM   1620  C    GLN A 212     10.666  58.910  50.118  1.00100.76      6
ATOM   1621  O    GLN A 212     11.576  58.234  50.592  1.00100.37      8
ATOM   1622  N    ALA A 213     10.507  60.204  50.373  1.00 67.79      7
ATOM   1623  CA   ALA A 213     11.420  60.940  51.220  1.00 65.50      6
ATOM   1624  CB   ALA A 213     10.995  62.382  51.298  1.00 13.87      6
ATOM   1625  C    ALA A 213     11.475  60.333  52.608  1.00 64.69      6
ATOM   1626  O    ALA A 213     12.525  59.856  53.030  1.00 65.22      8
ATOM   1627  N    VAL A 214     10.349  60.341  53.317  1.00 68.52      7
ATOM   1628  CA   VAL A 214     10.311  59.790  54.673  1.00 69.21      6
ATOM   1629  CB   VAL A 214      8.852  59.699  55.228  1.00100.42      6
ATOM   1630  CG1  VAL A 214      8.155  61.040  55.090  1.00101.75      6
ATOM   1631  CG2  VAL A 214      8.069  58.622  54.503  1.00101.44      6
ATOM   1632  C    VAL A 214     10.934  58.397  54.694  1.00 68.93      6
ATOM   1633  O    VAL A 214     11.367  57.906  55.738  1.00 69.47      8
ATOM   1634  N    ALA A 215     10.986  57.777  53.519  1.00 54.30      7
ATOM   1635  CA   ALA A 215     11.531  56.438  53.371  1.00 51.91      6
ATOM   1636  CB   ALA A 215     11.193  55.893  51.997  1.00 65.24      6
ATOM   1637  C    ALA A 215     13.023  56.442  53.567  1.00 50.60      6
ATOM   1638  O    ALA A 215     13.527  55.844  54.507  1.00 50.82      8
ATOM   1639  N    ILE A 216     13.721  57.129  52.671  1.00 43.01      7
ATOM   1640  CA   ILE A 216     15.172  57.198  52.722  1.00 41.44      6
ATOM   1641  CB   ILE A 216     15.730  58.209  51.708  1.00 19.95      6
ATOM   1642  CG2  ILE A 216     17.099  57.774  51.249  1.00 18.66      6
ATOM   1643  CG1  ILE A 216     14.829  58.282  50.484  1.00 19.48      6
ATOM   1644  CD1  ILE A 216     14.631  56.966  49.787  1.00 21.24      6
ATOM   1645  C    ILE A 216     15.663  57.587  54.108  1.00 41.48      6
ATOM   1646  O    ILE A 216     16.557  56.940  54.656  1.00 41.44      8
ATOM   1647  N    LEU A 217     15.072  58.635  54.679  1.00 28.89      7
ATOM   1648  CA   LEU A 217     15.470  59.104  56.003  1.00 28.88      6
ATOM   1649  CB   LEU A 217     14.667  60.346  56.379  1.00 22.95      6
ATOM   1650  CG   LEU A 217     14.900  60.934  57.770  1.00 21.45      6
ATOM   1651  CD1  LEU A 217     16.368  60.994  58.127  1.00 20.21      6
ATOM   1652  CD2  LEU A 217     14.311  62.321  57.757  1.00 21.23      6
ATOM   1653  C    LEU A 217     15.320  58.037  57.082  1.00 29.41      6
ATOM   1654  O    LEU A 217     16.083  58.010  58.049  1.00 29.86      8
ATOM   1655  N    LYS A 218     14.328  57.164  56.913  1.00 50.57      7
ATOM   1656  CA   LYS A 218     14.084  56.078  57.859  1.00 51.86      6
ATOM   1657  CB   LYS A 218     12.685  55.496  57.679  1.00 57.70      6
ATOM   1658  CG   LYS A 218     11.535  56.416  58.036  1.00 59.45      6
ATOM   1659  CD   LYS A 218     10.227  55.649  57.956  1.00 61.30      6
ATOM   1660  CE   LYS A 218      9.056  56.466  58.459  1.00 63.03      6
ATOM   1661  NZ   LYS A 218      7.845  55.607  58.644  1.00 64.61      7
ATOM   1662  C    LYS A 218     15.095  54.993  57.567  1.00 51.99      6
ATOM   1663  O    LYS A 218     15.618  54.363  58.477  1.00 51.13      8
ATOM   1664  N    GLU A 219     15.345  54.792  56.275  1.00 59.27      7
ATOM   1665  CA   GLU A 219     16.283  53.799  55.766  1.00 61.46      6
ATOM   1666  CB   GLU A 219     16.251  53.828  54.233  1.00113.88      6
ATOM   1667  CG   GLU A 219     16.891  52.640  53.528  1.00117.59      6
ATOM   1668  CD   GLU A 219     16.680  52.676  52.011  1.00120.81      6
ATOM   1669  OE1  GLU A 219     15.515  52.611  51.550  1.00121.78      8
ATOM   1670  OE2  GLU A 219     17.685  52.770  51.273  1.00122.09      8
ATOM   1671  C    GLU A 219     17.689  54.110  56.285  1.00 60.81      6
```

```
ATOM   1672  O    GLU A 219    18.427  53.215  56.706  1.00  60.38    8
ATOM   1673  N    HIS A 220    18.054  55.386  56.262  1.00  65.87    7
ATOM   1674  CA   HIS A 220    19.359  55.800  56.741  1.00  65.62    6
ATOM   1675  CB   HIS A 220    19.667  57.206  56.282  1.00  39.54    6
ATOM   1676  CG   HIS A 220    19.896  57.301  54.816  1.00  38.27    6
ATOM   1677  CD2  HIS A 220    19.095  57.728  53.815  1.00  37.65    6
ATOM   1678  ND1  HIS A 220    21.047  56.838  54.218  1.00  37.62    7
ATOM   1679  CE1  HIS A 220    20.942  56.973  52.909  1.00  37.73    6
ATOM   1680  NE2  HIS A 220    19.766  57.510  52.639  1.00  37.89    7
ATOM   1681  C    HIS A 220    19.377  55.752  58.237  1.00  65.89    6
ATOM   1682  O    HIS A 220    20.261  55.148  58.828  1.00  67.49    8
ATOM   1683  N    LEU A 221    18.396  56.397  58.853  1.00  48.36    7
ATOM   1684  CA   LEU A 221    18.305  56.408  60.304  1.00  48.22    6
ATOM   1685  CB   LEU A 221    16.867  56.693  60.721  1.00  31.54    6
ATOM   1686  CG   LEU A 221    16.566  57.975  61.495  1.00  30.44    6
ATOM   1687  CD1  LEU A 221    17.607  58.127  62.603  1.00  30.22    6
ATOM   1688  CD2  LEU A 221    16.553  59.181  60.566  1.00  29.38    6
ATOM   1689  C    LEU A 221    18.736  55.047  60.862  1.00  48.73    6
ATOM   1690  O    LEU A 221    19.479  54.960  61.849  1.00  48.06    8
ATOM   1691  N    ASN A 222    18.267  53.990  60.199  1.00  57.57    7
ATOM   1692  CA   ASN A 222    18.561  52.618  60.594  1.00  58.23    6
ATOM   1693  CB   ASN A 222    18.084  51.638  59.523  1.00  62.29    6
ATOM   1694  CG   ASN A 222    16.568  51.594  59.405  1.00  62.92    6
ATOM   1695  OD1  ASN A 222    15.856  51.358  60.386  1.00  63.28    8
ATOM   1696  ND2  ASN A 222    16.067  51.816  58.199  1.00  63.76    7
ATOM   1697  C    ASN A 222    20.032  52.423  60.828  1.00  58.36    6
ATOM   1698  O    ASN A 222    20.447  52.071  61.926  1.00  58.19    8
ATOM   1699  N    TYR A 223    20.810  52.667  59.782  1.00  57.73    7
ATOM   1700  CA   TYR A 223    22.261  52.520  59.819  1.00  58.14    6
ATOM   1701  CB   TYR A 223    22.914  53.522  58.857  1.00  81.51    6
ATOM   1702  CG   TYR A 223    22.622  53.233  57.395  1.00  81.37    6
ATOM   1703  CD1  TYR A 223    22.759  51.944  56.883  1.00  81.65    6
ATOM   1704  CE1  TYR A 223    22.503  51.670  55.549  1.00  82.13    6
ATOM   1705  CD2  TYR A 223    22.221  54.245  56.525  1.00  80.64    6
ATOM   1706  CE2  TYR A 223    21.963  53.980  55.189  1.00  81.03    6
ATOM   1707  CZ   TYR A 223    22.105  52.691  54.708  1.00  81.92    6
ATOM   1708  OH   TYR A 223    21.842  52.412  53.386  1.00  82.77    8
ATOM   1709  C    TYR A 223    22.911  52.622  61.197  1.00  58.19    6
ATOM   1710  O    TYR A 223    23.891  51.921  61.467  1.00  58.31    8
ATOM   1711  N    PHE A 224    22.388  53.482  62.067  1.00  62.07    7
ATOM   1712  CA   PHE A 224    22.964  53.592  63.403  1.00  63.51    6
ATOM   1713  CB   PHE A 224    22.478  54.865  64.119  1.00  39.72    6
ATOM   1714  CG   PHE A 224    22.643  56.148  63.319  1.00  36.56    6
ATOM   1715  CD1  PHE A 224    21.870  56.389  62.183  1.00  35.76    6
ATOM   1716  CD2  PHE A 224    23.518  57.139  63.743  1.00  34.63    6
ATOM   1717  CE1  PHE A 224    21.967  57.602  61.490  1.00  34.55    6
ATOM   1718  CE2  PHE A 224    23.616  58.340  63.057  1.00  34.38    6
ATOM   1719  CZ   PHE A 224    22.837  58.573  61.929  1.00  33.84    6
ATOM   1720  C    PHE A 224    22.505  52.342  64.177  1.00  64.88    6
ATOM   1721  O    PHE A 224    21.931  52.437  65.266  1.00  64.71    8
ATOM   1722  N    ALA A 225    22.773  51.173  63.598  1.00  57.96    7
ATOM   1723  CA   ALA A 225    22.370  49.899  64.179  1.00  60.31    6
ATOM   1724  CB   ALA A 225    21.893  48.968  63.074  1.00  89.79    6
ATOM   1725  C    ALA A 225    23.424  49.192  65.022  1.00  61.98    6
ATOM   1726  O    ALA A 225    23.407  49.299  66.244  1.00  62.94    8
ATOM   1727  N    ASN A 226    24.324  48.451  64.376  1.00  79.27    7
```

31

```
ATOM   1728  CA  ASN A 226     25.369  47.711  65.092  1.00 80.93      6
ATOM   1729  CB  ASN A 226     25.399  46.255  64.621  1.00184.67      6
ATOM   1730  CG  ASN A 226     24.239  45.444  65.168  1.00186.86      6
ATOM   1731  OD1 ASN A 226     24.046  44.287  64.793  1.00187.92      8
ATOM   1732  ND2 ASN A 226     23.463  46.045  66.066  1.00187.67      7
ATOM   1733  C   ASN A 226     26.759  48.329  64.969  1.00 80.54      6
ATOM   1734  O   ASN A 226     27.355  48.365  63.892  1.00 80.25      8
ATOM   1735  N   PRO A 227     27.301  48.806  66.095  1.00 31.83      7
ATOM   1736  CD  PRO A 227     26.576  48.977  67.370  1.00 64.99      6
ATOM   1737  CA  PRO A 227     28.614  49.440  66.160  1.00 32.33      6
ATOM   1738  CB  PRO A 227     28.393  50.513  67.207  1.00 64.99      6
ATOM   1739  CG  PRO A 227     27.572  49.753  68.225  1.00 64.42      6
ATOM   1740  C   PRO A 227     29.736  48.501  66.549  1.00 33.14      6
ATOM   1741  O   PRO A 227     29.510  47.554  67.297  1.00 32.56      8
ATOM   1742  N   GLU A 228     30.944  48.779  66.054  1.00 45.58      7
ATOM   1743  CA  GLU A 228     32.119  47.962  66.368  1.00 47.66      6
ATOM   1744  CB  GLU A 228     32.962  47.714  65.112  1.00122.21      6
ATOM   1745  CG  GLU A 228     32.226  47.022  63.975  1.00125.27      6
ATOM   1746  CD  GLU A 228     33.048  46.960  62.698  1.00126.99      6
ATOM   1747  OE1 GLU A 228     33.469  48.027  62.204  1.00127.85      8
ATOM   1748  OE2 GLU A 228     33.272  45.846  62.184  1.00128.27      8
ATOM   1749  C   GLU A 228     32.961  48.719  67.387  1.00 47.81      6
ATOM   1750  O   GLU A 228     32.563  48.761  68.572  1.00 48.48      8
ATOM   1751  OXT GLU A 228     34.003  49.278  66.984  1.00122.18      8
ATOM   1752  CB  ALA B   3     36.891  46.742  48.658  1.00177.12      6
ATOM   1753  C   ALA B   3     35.150  46.906  50.443  1.00140.19      6
ATOM   1754  O   ALA B   3     35.794  46.246  51.264  1.00140.05      8
ATOM   1755  N   ALA B   3     34.714  47.787  48.149  1.00139.84      7
ATOM   1756  CA  ALA B   3     35.397  46.724  48.947  1.00139.99      6
ATOM   1757  N   SER B   4     34.224  47.811  50.775  1.00101.63      7
ATOM   1758  CA  SER B   4     33.825  48.123  52.156  1.00100.90      6
ATOM   1759  CB  SER B   4     34.990  47.939  53.138  1.00153.10      6
ATOM   1760  OG  SER B   4     35.096  46.587  53.558  1.00154.08      8
ATOM   1761  C   SER B   4     33.278  49.539  52.305  1.00 99.84      6
ATOM   1762  O   SER B   4     34.037  50.510  52.324  1.00100.06      8
ATOM   1763  N   ALA B   5     31.956  49.630  52.423  1.00120.11      7
ATOM   1764  CA  ALA B   5     31.232  50.889  52.586  1.00119.35      6
ATOM   1765  CB  ALA B   5     31.983  52.033  51.925  1.00 90.01      6
ATOM   1766  C   ALA B   5     29.853  50.744  51.955  1.00118.60      6
ATOM   1767  O   ALA B   5     28.836  50.697  52.649  1.00118.65      8
ATOM   1768  N   ALA B   6     29.845  50.667  50.627  1.00101.80      7
ATOM   1769  CA  ALA B   6     28.631  50.519  49.829  1.00101.01      6
ATOM   1770  CB  ALA B   6     28.490  49.062  49.369  1.00 18.92      6
ATOM   1771  C   ALA B   6     27.351  50.984  50.526  1.00100.19      6
ATOM   1772  O   ALA B   6     27.349  51.981  51.249  1.00101.16      8
ATOM   1773  N   LYS B   7     26.261  50.260  50.293  1.00113.51      7
ATOM   1774  CA  LYS B   7     24.971  50.601  50.878  1.00111.85      6
ATOM   1775  CB  LYS B   7     23.841  50.078  49.985  1.00206.39      6
ATOM   1776  CG  LYS B   7     23.851  50.697  48.595  1.00208.87      6
ATOM   1777  CD  LYS B   7     22.788  50.116  47.670  1.00208.87      6
ATOM   1778  CE  LYS B   7     22.858  50.783  46.293  1.00208.87      6
ATOM   1779  NZ  LYS B   7     21.902  50.212  45.298  1.00208.87      7
ATOM   1780  C   LYS B   7     24.821  50.048  52.285  1.00109.93      6
ATOM   1781  O   LYS B   7     23.808  49.435  52.615  1.00110.05      8
ATOM   1782  N   ALA B   8     25.835  50.272  53.114  1.00 61.60      7
ATOM   1783  CA  ALA B   8     25.815  49.803  54.492  1.00 58.50      6
```

32

ATOM	1784	CB	ALA	B	8	25.895	48.298	54.521	1.00	56.84	6
ATOM	1785	C	ALA	B	8	26.989	50.402	55.254	1.00	56.66	6
ATOM	1786	O	ALA	B	8	28.016	49.749	55.439	1.00	56.49	8
ATOM	1787	N	PRO	B	9	26.847	51.654	55.717	1.00	53.70	7
ATOM	1788	CD	PRO	B	9	25.625	52.472	55.654	1.00	64.50	6
ATOM	1789	CA	PRO	B	9	27.898	52.354	56.460	1.00	51.92	6
ATOM	1790	CB	PRO	B	9	27.319	53.753	56.635	1.00	63.49	6
ATOM	1791	CG	PRO	B	9	25.857	53.478	56.754	1.00	64.27	6
ATOM	1792	C	PRO	B	9	28.239	51.697	57.784	1.00	51.30	6
ATOM	1793	O	PRO	B	9	27.392	51.053	58.400	1.00	51.69	8
ATOM	1794	N	VAL	B	10	29.487	51.878	58.207	1.00	51.49	7
ATOM	1795	CA	VAL	B	10	29.983	51.312	59.450	1.00	50.52	6
ATOM	1796	CB	VAL	B	10	31.460	50.948	59.346	1.00	58.34	6
ATOM	1797	CG1	VAL	B	10	31.892	50.206	60.596	1.00	58.83	6
ATOM	1798	CG2	VAL	B	10	31.705	50.121	58.100	1.00	58.45	6
ATOM	1799	C	VAL	B	10	29.846	52.297	60.590	1.00	50.72	6
ATOM	1800	O	VAL	B	10	30.563	53.298	60.636	1.00	51.63	8
ATOM	1801	N	PHE	B	11	28.929	51.986	61.505	1.00	53.80	7
ATOM	1802	CA	PHE	B	11	28.627	52.789	62.693	1.00	52.66	6
ATOM	1803	CB	PHE	B	11	27.231	52.403	63.167	1.00	77.05	6
ATOM	1804	CG	PHE	B	11	26.651	53.330	64.173	1.00	77.97	6
ATOM	1805	CD1	PHE	B	11	26.463	54.671	63.869	1.00	78.45	6
ATOM	1806	CD2	PHE	B	11	26.251	52.855	65.418	1.00	79.06	6
ATOM	1807	CE1	PHE	B	11	25.883	55.527	64.786	1.00	78.89	6
ATOM	1808	CE2	PHE	B	11	25.667	53.704	66.346	1.00	79.40	6
ATOM	1809	CZ	PHE	B	11	25.482	55.044	66.029	1.00	79.32	6
ATOM	1810	C	PHE	B	11	29.673	52.486	63.786	1.00	53.13	6
ATOM	1811	O	PHE	B	11	29.660	51.407	64.379	1.00	53.82	8
ATOM	1812	N	THR	B	12	30.575	53.429	64.056	1.00	66.78	7
ATOM	1813	CA	THR	B	12	31.636	53.207	65.047	1.00	67.68	6
ATOM	1814	CB	THR	B	12	33.026	53.500	64.437	1.00	114.71	6
ATOM	1815	OG1	THR	B	12	33.244	52.650	63.305	1.00	115.14	8
ATOM	1816	CG2	THR	B	12	34.120	53.252	65.460	1.00	115.46	6
ATOM	1817	C	THR	B	12	31.501	54.033	66.323	1.00	68.21	6
ATOM	1818	O	THR	B	12	31.599	55.258	66.286	1.00	68.13	8
ATOM	1819	N	ALA	B	13	31.315	53.351	67.454	1.00	70.17	7
ATOM	1820	CA	ALA	B	13	31.151	54.002	68.760	1.00	71.26	6
ATOM	1821	CB	ALA	B	13	30.227	53.173	69.630	1.00	41.04	6
ATOM	1822	C	ALA	B	13	32.459	54.233	69.502	1.00	73.13	6
ATOM	1823	O	ALA	B	13	33.526	53.838	69.038	1.00	74.07	8
ATOM	1824	N	THR	B	14	32.371	54.867	70.668	1.00	89.91	7
ATOM	1825	CA	THR	B	14	33.561	55.127	71.473	1.00	91.34	6
ATOM	1826	CB	THR	B	14	34.018	56.582	71.335	1.00	149.30	6
ATOM	1827	OG1	THR	B	14	34.368	56.838	69.968	1.00	151.79	8
ATOM	1828	CG2	THR	B	14	35.232	56.852	72.214	1.00	148.89	6
ATOM	1829	C	THR	B	14	33.351	54.802	72.946	1.00	93.15	6
ATOM	1830	O	THR	B	14	34.305	54.731	73.713	1.00	93.29	8
ATOM	1831	N	THR	B	15	32.095	54.612	73.332	1.00	108.52	7
ATOM	1832	CA	THR	B	15	31.741	54.251	74.701	1.00	109.63	6
ATOM	1833	CB	THR	B	15	31.501	52.723	74.807	1.00	158.82	6
ATOM	1834	OG1	THR	B	15	32.586	52.022	74.187	1.00	160.26	8
ATOM	1835	CG2	THR	B	15	30.196	52.331	74.119	1.00	158.82	6
ATOM	1836	C	THR	B	15	32.739	54.657	75.791	1.00	110.48	6
ATOM	1837	O	THR	B	15	33.354	53.804	76.432	1.00	111.01	8
ATOM	1838	N	GLN	B	16	32.893	55.959	76.008	1.00	86.50	7
ATOM	1839	CA	GLN	B	16	33.806	56.463	77.034	1.00	87.15	6

33

ATOM	1840	CB	GLN	B	16	33.877	57.996	76.949	1.00	90.84	6
ATOM	1841	CG	GLN	B	16	34.756	58.676	77.985	1.00	92.61	6
ATOM	1842	CD	GLN	B	16	36.183	58.158	77.984	1.00	94.30	6
ATOM	1843	OE1	GLN	B	16	36.836	58.104	76.941	1.00	96.12	8
ATOM	1844	NE2	GLN	B	16	36.679	57.783	79.159	1.00	95.03	7
ATOM	1845	C	GLN	B	16	33.307	56.022	78.414	1.00	88.26	6
ATOM	1846	O	GLN	B	16	33.879	56.382	79.442	1.00	88.50	8
ATOM	1847	N	GLY	B	17	32.237	55.232	78.426	1.00	144.12	7
ATOM	1848	CA	GLY	B	17	31.684	54.764	79.682	1.00	143.78	6
ATOM	1849	C	GLY	B	17	30.395	55.477	80.037	1.00	144.22	6
ATOM	1850	O	GLY	B	17	29.395	55.356	79.332	1.00	144.77	8
ATOM	1851	N	ASP	B	18	30.413	56.231	81.128	1.00	104.50	7
ATOM	1852	CA	ASP	B	18	29.223	56.951	81.561	1.00	103.73	6
ATOM	1853	CB	ASP	B	18	29.371	57.379	83.021	1.00	208.05	6
ATOM	1854	CG	ASP	B	18	30.681	58.084	83.288	1.00	208.87	6
ATOM	1855	OD1	ASP	B	18	31.740	57.435	83.153	1.00	208.87	8
ATOM	1856	OD2	ASP	B	18	30.651	59.284	83.632	1.00	208.87	8
ATOM	1857	C	ASP	B	18	28.871	58.164	80.702	1.00	102.50	6
ATOM	1858	O	ASP	B	18	27.779	58.714	80.836	1.00	102.98	8
ATOM	1859	N	HIS	B	19	29.792	58.590	79.836	1.00	46.05	7
ATOM	1860	CA	HIS	B	19	29.548	59.727	78.943	1.00	44.55	6
ATOM	1861	CB	HIS	B	19	29.669	61.056	79.703	1.00	142.23	6
ATOM	1862	CG	HIS	B	19	30.981	61.256	80.394	1.00	144.41	6
ATOM	1863	CD2	HIS	B	19	32.128	60.536	80.370	1.00	145.87	6
ATOM	1864	ND1	HIS	B	19	31.221	62.328	81.225	1.00	145.49	7
ATOM	1865	CE1	HIS	B	19	32.457	62.262	81.684	1.00	146.38	6
ATOM	1866	NE2	HIS	B	19	33.029	61.183	81.179	1.00	146.80	7
ATOM	1867	C	HIS	B	19	30.449	59.743	77.705	1.00	42.86	6
ATOM	1868	O	HIS	B	19	31.104	58.758	77.389	1.00	41.54	8
ATOM	1869	N	TYR	B	20	30.464	60.864	76.998	1.00	101.12	7
ATOM	1870	CA	TYR	B	20	31.275	61.004	75.793	1.00	98.97	6
ATOM	1871	CB	TYR	B	20	32.761	61.154	76.146	1.00	129.01	6
ATOM	1872	CG	TYR	B	20	33.590	61.769	75.031	1.00	130.15	6
ATOM	1873	CD1	TYR	B	20	34.959	61.990	75.189	1.00	130.78	6
ATOM	1874	CE1	TYR	B	20	35.718	62.591	74.171	1.00	131.57	6
ATOM	1875	CD2	TYR	B	20	32.997	62.160	73.827	1.00	130.28	6
ATOM	1876	CE2	TYR	B	20	33.740	62.759	72.808	1.00	130.52	6
ATOM	1877	CZ	TYR	B	20	35.099	62.974	72.981	1.00	130.95	6
ATOM	1878	OH	TYR	B	20	35.825	63.575	71.966	1.00	129.42	8
ATOM	1879	C	TYR	B	20	31.106	59.821	74.849	1.00	96.88	6
ATOM	1880	O	TYR	B	20	32.029	59.035	74.654	1.00	97.42	8
ATOM	1881	N	GLY	B	21	29.924	59.702	74.261	1.00	94.58	7
ATOM	1882	CA	GLY	B	21	29.669	58.615	73.339	1.00	91.23	6
ATOM	1883	C	GLY	B	21	30.045	58.982	71.918	1.00	90.19	6
ATOM	1884	O	GLY	B	21	29.182	59.139	71.058	1.00	90.24	8
ATOM	1885	N	GLU	B	22	31.342	59.124	71.676	1.00	82.21	7
ATOM	1886	CA	GLU	B	22	31.865	59.467	70.356	1.00	79.42	6
ATOM	1887	CB	GLU	B	22	33.386	59.547	70.456	1.00	80.54	6
ATOM	1888	CG	GLU	B	22	34.110	60.342	69.407	1.00	81.39	6
ATOM	1889	CD	GLU	B	22	35.596	60.408	69.716	1.00	82.92	6
ATOM	1890	OE1	GLU	B	22	36.274	59.369	69.576	1.00	82.42	8
ATOM	1891	OE2	GLU	B	22	36.086	61.489	70.118	1.00	84.93	8
ATOM	1892	C	GLU	B	22	31.438	58.371	69.368	1.00	77.68	6
ATOM	1893	O	GLU	B	22	31.832	57.211	69.502	1.00	77.30	8
ATOM	1894	N	PHE	B	23	30.617	58.736	68.387	1.00	48.34	7
ATOM	1895	CA	PHE	B	23	30.125	57.766	67.405	1.00	45.62	6

ATOM	1896	CB	PHE B	23	28.607	57.648	67.541	1.00	54.52	6
ATOM	1897	CG	PHE B	23	28.164	57.240	68.920	1.00	53.70	6
ATOM	1898	CD1	PHE B	23	26.861	57.435	69.330	1.00	54.29	6
ATOM	1899	CD2	PHE B	23	29.065	56.674	69.816	1.00	52.65	6
ATOM	1900	CE1	PHE B	23	26.458	57.077	70.611	1.00	55.28	6
ATOM	1901	CE2	PHE B	23	28.672	56.314	71.098	1.00	53.37	6
ATOM	1902	CZ	PHE B	23	27.368	56.515	71.497	1.00	54.11	6
ATOM	1903	C	PHE B	23	30.538	58.118	65.978	1.00	44.10	6
ATOM	1904	O	PHE B	23	30.849	59.265	65.688	1.00	44.77	8
ATOM	1905	N	VAL B	24	30.534	57.139	65.082	1.00	44.68	7
ATOM	1906	CA	VAL B	24	30.993	57.388	63.726	1.00	43.27	6
ATOM	1907	CB	VAL B	24	32.529	57.187	63.625	1.00	15.18	6
ATOM	1908	CG1	VAL B	24	32.988	57.381	62.216	1.00	13.87	6
ATOM	1909	CG2	VAL B	24	33.248	58.131	64.528	1.00	15.68	6
ATOM	1910	C	VAL B	24	30.395	56.492	62.656	1.00	44.28	6
ATOM	1911	O	VAL B	24	30.974	55.449	62.353	1.00	44.86	8
ATOM	1912	N	LEU B	25	29.253	56.865	62.081	1.00	60.79	7
ATOM	1913	CA	LEU B	25	28.698	56.055	60.994	1.00	60.09	6
ATOM	1914	CB	LEU B	25	27.172	56.238	60.872	1.00	15.01	6
ATOM	1915	CG	LEU B	25	26.568	57.265	59.920	1.00	13.87	6
ATOM	1916	CD1	LEU B	25	26.903	56.857	58.514	1.00	13.87	6
ATOM	1917	CD2	LEU B	25	25.053	57.330	60.085	1.00	13.87	6
ATOM	1918	C	LEU B	25	29.476	56.695	59.848	1.00	61.13	6
ATOM	1919	O	LEU B	25	29.722	57.903	59.889	1.00	60.97	8
ATOM	1920	N	GLU B	26	29.866	55.924	58.832	1.00	89.90	7
ATOM	1921	CA	GLU B	26	30.705	56.519	57.794	1.00	91.26	6
ATOM	1922	CB	GLU B	26	32.037	55.774	57.778	1.00	102.03	6
ATOM	1923	CG	GLU B	26	33.175	56.601	57.229	1.00	104.07	6
ATOM	1924	CD	GLU B	26	34.422	55.782	57.030	1.00	107.14	6
ATOM	1925	OE1	GLU B	26	34.388	54.866	56.182	1.00	109.13	8
ATOM	1926	OE2	GLU B	26	35.428	56.044	57.724	1.00	107.71	8
ATOM	1927	C	GLU B	26	30.263	56.838	56.348	1.00	90.05	6
ATOM	1928	O	GLU B	26	29.431	57.728	56.157	1.00	90.37	8
ATOM	1929	N	PRO B	27	30.785	56.125	55.317	1.00	56.95	7
ATOM	1930	CD	PRO B	27	31.531	54.861	55.190	1.00	13.87	6
ATOM	1931	CA	PRO B	27	30.309	56.550	53.993	1.00	58.52	6
ATOM	1932	CB	PRO B	27	30.825	55.449	53.056	1.00	14.57	6
ATOM	1933	CG	PRO B	27	32.052	54.963	53.766	1.00	13.87	6
ATOM	1934	C	PRO B	27	28.822	56.836	53.851	1.00	58.78	6
ATOM	1935	O	PRO B	27	27.965	55.972	54.047	1.00	59.53	8
ATOM	1936	N	LEU B	28	28.536	58.086	53.519	1.00	37.49	7
ATOM	1937	CA	LEU B	28	27.174	58.550	53.347	1.00	38.26	6
ATOM	1938	CB	LEU B	28	26.741	59.309	54.611	1.00	21.14	6
ATOM	1939	CG	LEU B	28	26.710	58.546	55.951	1.00	18.35	6
ATOM	1940	CD1	LEU B	28	26.465	59.481	57.103	1.00	18.15	6
ATOM	1941	CD2	LEU B	28	25.622	57.519	55.898	1.00	17.94	6
ATOM	1942	C	LEU B	28	27.232	59.479	52.150	1.00	39.15	6
ATOM	1943	O	LEU B	28	28.181	60.234	52.018	1.00	39.68	8
ATOM	1944	N	GLU B	29	26.246	59.418	51.267	1.00	28.57	7
ATOM	1945	CA	GLU B	29	26.255	60.294	50.095	1.00	30.85	6
ATOM	1946	CB	GLU B	29	25.014	60.038	49.235	1.00	193.66	6
ATOM	1947	CG	GLU B	29	25.037	60.724	47.871	1.00	198.20	6
ATOM	1948	CD	GLU B	29	26.068	60.131	46.927	1.00	200.49	6
ATOM	1949	OE1	GLU B	29	27.268	60.137	47.276	1.00	202.11	8
ATOM	1950	OE2	GLU B	29	25.677	59.659	45.835	1.00	199.88	8
ATOM	1951	C	GLU B	29	26.296	61.769	50.530	1.00	29.83	6

```
ATOM   1952  O    GLU B  29      25.524  62.200  51.405  1.00  28.53       8
ATOM   1953  N    ARG B  30      27.183  62.548  49.915  1.00  47.67       7
ATOM   1954  CA   ARG B  30      27.313  63.950  50.295  1.00  48.20       6
ATOM   1955  CB   ARG B  30      28.083  64.749  49.228  1.00  85.66       6
ATOM   1956  CG   ARG B  30      27.338  64.986  47.926  1.00  89.54       6
ATOM   1957  CD   ARG B  30      27.587  66.396  47.389  1.00  92.43       6
ATOM   1958  NE   ARG B  30      26.693  66.724  46.275  1.00  95.87       7
ATOM   1959  CZ   ARG B  30      26.707  67.874  45.602  1.00  96.56       6
ATOM   1960  NH1  ARG B  30      27.571  68.830  45.922  1.00  96.82       7
ATOM   1961  NH2  ARG B  30      25.863  68.065  44.597  1.00  96.67       7
ATOM   1962  C    ARG B  30      25.958  64.596  50.553  1.00  45.28       6
ATOM   1963  O    ARG B  30      25.218  64.905  49.629  1.00  44.63       8
ATOM   1964  N    GLY B  31      25.619  64.788  51.816  1.00  66.33       7
ATOM   1965  CA   GLY B  31      24.349  65.420  52.101  1.00  66.30       6
ATOM   1966  C    GLY B  31      23.482  64.622  53.040  1.00  65.00       6
ATOM   1967  O    GLY B  31      22.256  64.592  52.895  1.00  65.26       8
ATOM   1968  N    PHE B  32      24.120  63.962  53.996  1.00  58.11       7
ATOM   1969  CA   PHE B  32      23.403  63.171  54.977  1.00  55.81       6
ATOM   1970  CB   PHE B  32      23.260  61.722  54.506  1.00  24.56       6
ATOM   1971  CG   PHE B  32      22.180  61.538  53.483  1.00  21.18       6
ATOM   1972  CD1  PHE B  32      20.874  61.282  53.877  1.00  20.75       6
ATOM   1973  CD2  PHE B  32      22.451  61.701  52.126  1.00  19.17       6
ATOM   1974  CE1  PHE B  32      19.853  61.199  52.946  1.00  19.26       6
ATOM   1975  CE2  PHE B  32      21.431  61.623  51.180  1.00  17.56       6
ATOM   1976  CZ   PHE B  32      20.131  61.371  51.592  1.00  18.01       6
ATOM   1977  C    PHE B  32      24.156  63.259  56.277  1.00  55.18       6
ATOM   1978  O    PHE B  32      23.590  63.048  57.347  1.00  56.33       8
ATOM   1979  N    GLY B  33      25.439  63.580  56.189  1.00  33.58       7
ATOM   1980  CA   GLY B  33      26.199  63.727  57.408  1.00  34.02       6
ATOM   1981  C    GLY B  33      25.458  64.819  58.154  1.00  33.98       6
ATOM   1982  O    GLY B  33      25.449  64.881  59.384  1.00  33.68       8
ATOM   1983  N    VAL B  34      24.820  65.690  57.376  1.00  53.79       7
ATOM   1984  CA   VAL B  34      24.043  66.790  57.919  1.00  53.45       6
ATOM   1985  CB   VAL B  34      23.890  67.945  56.906  1.00  33.83       6
ATOM   1986  CG1  VAL B  34      23.298  69.148  57.586  1.00  35.07       6
ATOM   1987  CG2  VAL B  34      25.219  68.294  56.294  1.00  35.07       6
ATOM   1988  C    VAL B  34      22.658  66.236  58.180  1.00  53.28       6
ATOM   1989  O    VAL B  34      22.196  66.197  59.321  1.00  53.53       8
ATOM   1990  N    THR B  35      22.023  65.781  57.100  1.00  54.49       7
ATOM   1991  CA   THR B  35      20.665  65.249  57.137  1.00  53.19       6
ATOM   1992  CB   THR B  35      20.323  64.431  55.896  1.00  47.42       6
ATOM   1993  OG1  THR B  35      20.965  64.990  54.751  1.00  47.14       8
ATOM   1994  CG2  THR B  35      18.832  64.472  55.663  1.00  47.59       6
ATOM   1995  C    THR B  35      20.379  64.382  58.336  1.00  52.60       6
ATOM   1996  O    THR B  35      19.224  64.223  58.725  1.00  53.16       8
ATOM   1997  N    LEU B  36      21.412  63.806  58.926  1.00  20.23       7
ATOM   1998  CA   LEU B  36      21.170  62.992  60.092  1.00  20.76       6
ATOM   1999  CB   LEU B  36      21.763  61.602  59.919  1.00  46.64       6
ATOM   2000  CG   LEU B  36      21.303  60.874  58.663  1.00  46.22       6
ATOM   2001  CD1  LEU B  36      21.674  59.399  58.803  1.00  46.91       6
ATOM   2002  CD2  LEU B  36      19.801  61.046  58.465  1.00  44.40       6
ATOM   2003  C    LEU B  36      21.738  63.641  61.332  1.00  21.80       6
ATOM   2004  O    LEU B  36      20.991  64.098  62.189  1.00  21.82       8
ATOM   2005  N    GLY B  37      23.064  63.680  61.413  1.00  70.68       7
ATOM   2006  CA   GLY B  37      23.743  64.256  62.558  1.00  71.90       6
ATOM   2007  C    GLY B  37      22.994  65.360  63.274  1.00  72.46       6
```

ATOM	2008	O	GLY	B	37	22.953	65.375	64.503	1.00	72.33	8
ATOM	2009	N	ASN	B	38	22.386	66.277	62.524	1.00	65.39	7
ATOM	2010	CA	ASN	B	38	21.673	67.384	63.150	1.00	65.26	6
ATOM	2011	CB	ASN	B	38	21.300	68.446	62.113	1.00	25.63	6
ATOM	2012	CG	ASN	B	38	21.229	69.838	62.718	1.00	24.58	6
ATOM	2013	OD1	ASN	B	38	20.472	70.697	62.258	1.00	26.11	8
ATOM	2014	ND2	ASN	B	38	22.036	70.074	63.749	1.00	22.75	7
ATOM	2015	C	ASN	B	38	20.431	66.983	63.955	1.00	66.04	6
ATOM	2016	O	ASN	B	38	20.450	67.067	65.184	1.00	66.24	8
ATOM	2017	N	PRO	B	39	19.339	66.538	63.284	1.00	86.12	7
ATOM	2018	CD	PRO	B	39	19.158	66.243	61.850	1.00	27.75	6
ATOM	2019	CA	PRO	B	39	18.132	66.150	64.023	1.00	86.08	6
ATOM	2020	CB	PRO	B	39	17.337	65.378	62.985	1.00	27.67	6
ATOM	2021	CG	PRO	B	39	17.665	66.099	61.737	1.00	26.77	6
ATOM	2022	C	PRO	B	39	18.429	65.327	65.270	1.00	87.63	6
ATOM	2023	O	PRO	B	39	17.793	65.515	66.305	1.00	88.84	8
ATOM	2024	N	LEU	B	40	19.389	64.412	65.170	1.00	37.16	7
ATOM	2025	CA	LEU	B	40	19.771	63.610	66.327	1.00	38.01	6
ATOM	2026	CB	LEU	B	40	20.829	62.552	65.964	1.00	30.64	6
ATOM	2027	CG	LEU	B	40	20.398	61.361	65.106	1.00	30.84	6
ATOM	2028	CD1	LEU	B	40	19.168	60.700	65.700	1.00	30.00	6
ATOM	2029	CD2	LEU	B	40	20.101	61.836	63.705	1.00	31.53	6
ATOM	2030	C	LEU	B	40	20.341	64.569	67.361	1.00	38.69	6
ATOM	2031	O	LEU	B	40	19.853	64.629	68.481	1.00	38.27	8
ATOM	2032	N	ARG	B	41	21.369	65.321	66.971	1.00	55.38	7
ATOM	2033	CA	ARG	B	41	22.003	66.298	67.858	1.00	56.87	6
ATOM	2034	CB	ARG	B	41	23.079	67.091	67.089	1.00	81.26	6
ATOM	2035	CG	ARG	B	41	23.262	68.555	67.505	1.00	84.64	6
ATOM	2036	CD	ARG	B	41	22.236	69.446	66.809	1.00	87.81	6
ATOM	2037	NE	ARG	B	41	22.300	70.844	67.226	1.00	91.69	7
ATOM	2038	CZ	ARG	B	41	21.468	71.790	66.791	1.00	94.10	6
ATOM	2039	NH1	ARG	B	41	20.507	71.488	65.927	1.00	95.61	7
ATOM	2040	NH2	ARG	B	41	21.591	73.040	67.220	1.00	95.48	7
ATOM	2041	C	ARG	B	41	20.939	67.238	68.411	1.00	55.92	6
ATOM	2042	O	ARG	B	41	20.902	67.543	69.608	1.00	56.14	8
ATOM	2043	N	ARG	B	42	20.069	67.692	67.523	1.00	57.87	7
ATOM	2044	CA	ARG	B	42	19.005	68.579	67.920	1.00	57.13	6
ATOM	2045	CB	ARG	B	42	18.113	68.868	66.727	1.00	64.73	6
ATOM	2046	CG	ARG	B	42	17.240	70.072	66.892	1.00	65.29	6
ATOM	2047	CD	ARG	B	42	16.208	70.092	65.800	1.00	66.30	6
ATOM	2048	NE	ARG	B	42	15.518	71.364	65.771	1.00	68.31	7
ATOM	2049	CZ	ARG	B	42	16.147	72.517	65.607	1.00	70.27	6
ATOM	2050	NH1	ARG	B	42	17.468	72.527	65.461	1.00	70.63	7
ATOM	2051	NH2	ARG	B	42	15.462	73.651	65.588	1.00	71.14	7
ATOM	2052	C	ARG	B	42	18.229	67.833	68.994	1.00	56.62	6
ATOM	2053	O	ARG	B	42	18.336	68.155	70.175	1.00	57.25	8
ATOM	2054	N	ILE	B	43	17.476	66.817	68.576	1.00	77.76	7
ATOM	2055	CA	ILE	B	43	16.676	65.998	69.483	1.00	76.69	6
ATOM	2056	CB	ILE	B	43	16.165	64.741	68.776	1.00	64.03	6
ATOM	2057	CG2	ILE	B	43	15.567	63.786	69.783	1.00	62.92	6
ATOM	2058	CG1	ILE	B	43	15.147	65.138	67.707	1.00	65.81	6
ATOM	2059	CD1	ILE	B	43	14.445	63.971	67.030	1.00	70.53	6
ATOM	2060	C	ILE	B	43	17.442	65.561	70.721	1.00	76.34	6
ATOM	2061	O	ILE	B	43	16.889	65.539	71.818	1.00	76.73	8
ATOM	2062	N	LEU	B	44	18.709	65.202	70.527	1.00	46.89	7
ATOM	2063	CA	LEU	B	44	19.601	64.771	71.604	1.00	46.25	6

```
ATOM   2064   CB   LEU B  44     21.035  64.674  71.090  1.00 38.30    6
ATOM   2065   CG   LEU B  44     21.711  63.320  70.966  1.00 39.26    6
ATOM   2066   CD1  LEU B  44     20.927  62.307  71.762  1.00 39.28    6
ATOM   2067   CD2  LEU B  44     21.826  62.931  69.505  1.00 39.06    6
ATOM   2068   C    LEU B  44     19.593  65.742  72.778  1.00 46.18    6
ATOM   2069   O    LEU B  44     19.448  65.327  73.932  1.00 45.77    8
ATOM   2070   N    LEU B  45     19.768  67.030  72.467  1.00 43.02    7
ATOM   2071   CA   LEU B  45     19.802  68.093  73.471  1.00 42.79    6
ATOM   2072   CB   LEU B  45     20.227  69.412  72.835  1.00 59.53    6
ATOM   2073   CG   LEU B  45     21.718  69.572  72.551  1.00 59.66    6
ATOM   2074   CD1  LEU B  45     21.947  70.993  72.028  1.00 59.91    6
ATOM   2075   CD2  LEU B  45     22.548  69.307  73.827  1.00 59.49    6
ATOM   2076   C    LEU B  45     18.485  68.302  74.182  1.00 43.51    6
ATOM   2077   O    LEU B  45     18.447  68.848  75.283  1.00 42.99    8
ATOM   2078   N    SER B  46     17.410  67.867  73.539  1.00139.02    7
ATOM   2079   CA   SER B  46     16.076  68.000  74.095  1.00140.04    6
ATOM   2080   CB   SER B  46     15.203  68.840  73.160  1.00 52.11    6
ATOM   2081   OG   SER B  46     15.746  70.140  73.005  1.00 52.48    8
ATOM   2082   C    SER B  46     15.445  66.631  74.284  1.00141.18    6
ATOM   2083   O    SER B  46     16.113  65.664  74.662  1.00141.89    8
ATOM   2084   N    SER B  47     14.146  66.576  74.022  1.00 62.93    7
ATOM   2085   CA   SER B  47     13.361  65.360  74.121  1.00 62.15    6
ATOM   2086   CB   SER B  47     12.688  65.132  72.773  1.00 33.15    6
ATOM   2087   OG   SER B  47     12.207  66.370  72.280  1.00 34.70    8
ATOM   2088   C    SER B  47     14.147  64.116  74.558  1.00 61.77    6
ATOM   2089   O    SER B  47     14.852  63.499  73.768  1.00 61.78    8
ATOM   2090   N    ILE B  48     14.020  63.780  75.835  1.00 37.83    7
ATOM   2091   CA   ILE B  48     14.660  62.615  76.439  1.00 37.39    6
ATOM   2092   CB   ILE B  48     16.191  62.619  76.259  1.00 16.95    6
ATOM   2093   CG2  ILE B  48     16.860  61.854  77.420  1.00 17.05    6
ATOM   2094   CG1  ILE B  48     16.564  61.993  74.915  1.00 14.85    6
ATOM   2095   CD1  ILE B  48     18.001  61.528  74.848  1.00 15.56    6
ATOM   2096   C    ILE B  48     14.346  62.631  77.930  1.00 39.08    6
ATOM   2097   O    ILE B  48     14.724  63.554  78.638  1.00 39.18    8
ATOM   2098   N    PRO B  49     13.663  61.595  78.430  1.00 39.29    7
ATOM   2099   CD   PRO B  49     13.423  60.297  77.780  1.00 99.40    6
ATOM   2100   CA   PRO B  49     13.312  61.537  79.855  1.00 40.69    6
ATOM   2101   CB   PRO B  49     12.806  60.104  80.025  1.00 99.95    6
ATOM   2102   CG   PRO B  49     13.533  59.355  78.940  1.00100.22    6
ATOM   2103   C    PRO B  49     14.463  61.872  80.803  1.00 41.75    6
ATOM   2104   O    PRO B  49     15.623  61.592  80.490  1.00 41.14    8
ATOM   2105   N    GLY B  50     14.132  62.464  81.956  1.00 70.15    7
ATOM   2106   CA   GLY B  50     15.150  62.840  82.929  1.00 71.83    6
ATOM   2107   C    GLY B  50     14.865  62.678  84.422  1.00 74.05    6
ATOM   2108   O    GLY B  50     14.013  61.892  84.842  1.00 74.59    8
ATOM   2109   N    THR B  51     15.615  63.435  85.222  1.00119.01    7
ATOM   2110   CA   THR B  51     15.527  63.441  86.688  1.00118.26    6
ATOM   2111   CB   THR B  51     16.147  62.177  87.314  1.00 46.81    6
ATOM   2112   OG1  THR B  51     16.614  62.481  88.640  1.00 46.78    8
ATOM   2113   CG2  THR B  51     17.319  61.690  86.468  1.00 46.66    6
ATOM   2114   C    THR B  51     16.334  64.623  87.209  1.00119.45    6
ATOM   2115   O    THR B  51     17.516  64.475  87.534  1.00119.94    8
ATOM   2116   N    ALA B  52     15.706  65.790  87.303  1.00103.75    7
ATOM   2117   CA   ALA B  52     16.428  66.967  87.764  1.00102.87    6
ATOM   2118   CB   ALA B  52     16.697  67.892  86.582  1.00152.39    6
ATOM   2119   C    ALA B  52     15.774  67.756  88.889  1.00102.49    6
```

```
ATOM   2120  O    ALA B  52      14.593  68.104  88.815  1.00102.50      8
ATOM   2121  N    VAL B  53      16.556  68.038  89.930  1.00 62.89      7
ATOM   2122  CA   VAL B  53      16.071  68.827  91.054  1.00 61.42      6
ATOM   2123  CB   VAL B  53      17.251  69.332  91.935  1.00 38.24      6
ATOM   2124  CG1  VAL B  53      16.826  70.536  92.761  1.00 37.03      6
ATOM   2125  CG2  VAL B  53      17.734  68.211  92.852  1.00 37.95      6
ATOM   2126  C    VAL B  53      15.378  70.011  90.404  1.00 62.14      6
ATOM   2127  O    VAL B  53      15.778  70.444  89.323  1.00 61.57      8
ATOM   2128  N    THR B  54      14.336  70.534  91.031  1.00 59.37      7
ATOM   2129  CA   THR B  54      13.668  71.654  90.412  1.00 61.52      6
ATOM   2130  CB   THR B  54      12.606  71.155  89.423  1.00 86.50      6
ATOM   2131  OG1  THR B  54      11.751  72.242  89.048  1.00 87.50      8
ATOM   2132  CG2  THR B  54      11.797  70.029  90.039  1.00 88.32      6
ATOM   2133  C    THR B  54      13.053  72.667  91.362  1.00 62.88      6
ATOM   2134  O    THR B  54      12.680  73.758  90.935  1.00 62.88      8
ATOM   2135  N    SER B  55      12.968  72.324  92.645  1.00 68.07      7
ATOM   2136  CA   SER B  55      12.390  73.228  93.641  1.00 68.95      6
ATOM   2137  CB   SER B  55      10.867  73.069  93.645  1.00 66.80      6
ATOM   2138  OG   SER B  55      10.243  74.033  94.471  1.00 68.93      8
ATOM   2139  C    SER B  55      12.980  72.906  95.020  1.00 69.81      6
ATOM   2140  O    SER B  55      12.898  71.767  95.477  1.00 70.50      8
ATOM   2141  N    VAL B  56      13.567  73.900  95.688  1.00 39.05      7
ATOM   2142  CA   VAL B  56      14.199  73.652  96.985  1.00 39.67      6
ATOM   2143  CB   VAL B  56      15.710  74.006  96.953  1.00 37.61      6
ATOM   2144  CG1  VAL B  56      16.499  73.068  97.881  1.00 37.82      6
ATOM   2145  CG2  VAL B  56      16.228  73.935  95.537  1.00 36.61      6
ATOM   2146  C    VAL B  56      13.607  74.376  98.185  1.00 42.16      6
ATOM   2147  O    VAL B  56      12.975  75.413  98.062  1.00 41.71      8
ATOM   2148  N    TYR B  57      13.835  73.801  99.360  1.00 90.24      7
ATOM   2149  CA   TYR B  57      13.374  74.370 100.621  1.00 91.74      6
ATOM   2150  CB   TYR B  57      12.043  73.739 101.064  1.00 94.82      6
ATOM   2151  CG   TYR B  57      11.673  74.012 102.515  1.00 96.56      6
ATOM   2152  CD1  TYR B  57      10.822  73.157 103.210  1.00 97.93      6
ATOM   2153  CE1  TYR B  57      10.521  73.377 104.553  1.00 99.32      6
ATOM   2154  CD2  TYR B  57      12.204  75.101 103.204  1.00 96.87      6
ATOM   2155  CE2  TYR B  57      11.911  75.326 104.539  1.00 98.00      6
ATOM   2156  CZ   TYR B  57      11.075  74.463 105.206  1.00 99.30      6
ATOM   2157  OH   TYR B  57      10.812  74.681 106.533  1.00 99.95      8
ATOM   2158  C    TYR B  57      14.439  74.108 101.682  1.00 93.31      6
ATOM   2159  O    TYR B  57      14.880  72.976 101.870  1.00 93.22      8
ATOM   2160  N    ILE B  58      14.853  75.167 102.364  1.00150.74      7
ATOM   2161  CA   ILE B  58      15.847  75.056 103.418  1.00152.30      6
ATOM   2162  CB   ILE B  58      17.147  75.777 103.039  1.00 89.36      6
ATOM   2163  CG2  ILE B  58      18.313  75.163 103.785  1.00 89.02      6
ATOM   2164  CG1  ILE B  58      17.395  75.661 101.538  1.00 90.55      6
ATOM   2165  CD1  ILE B  58      18.567  76.493 101.057  1.00 92.33      6
ATOM   2166  C    ILE B  58      15.264  75.764 104.628  1.00153.96      6
ATOM   2167  O    ILE B  58      15.192  76.991 104.637  1.00154.94      8
ATOM   2168  N    GLU B  59      14.834  75.011 105.637  1.00 92.95      7
ATOM   2169  CA   GLU B  59      14.267  75.642 106.820  1.00 93.68      6
ATOM   2170  CB   GLU B  59      14.343  74.701 108.025  1.00208.87      6
ATOM   2171  CG   GLU B  59      14.156  75.393 109.381  1.00208.87      6
ATOM   2172  CD   GLU B  59      12.790  76.045 109.550  1.00208.87      6
ATOM   2173  OE1  GLU B  59      12.400  76.865 108.690  1.00208.87      8
ATOM   2174  OE2  GLU B  59      12.107  75.743 110.553  1.00208.87      8
ATOM   2175  C    GLU B  59      15.024  76.932 107.126  1.00 93.98      6
```

39

```
ATOM   2176  O    GLU B  59      16.247  76.987 106.976  1.00 94.44      8
ATOM   2177  N    ASP B  60      14.277  77.964 107.521  1.00148.93      7
ATOM   2178  CA   ASP B  60      14.792  79.291 107.882  1.00148.06      6
ATOM   2179  CB   ASP B  60      16.301  79.267 108.164  1.00106.25      6
ATOM   2180  CG   ASP B  60      16.636  78.550 109.453  1.00106.75      6
ATOM   2181  OD1  ASP B  60      15.907  78.758 110.449  1.00107.45      8
ATOM   2182  OD2  ASP B  60      17.631  77.793 109.476  1.00105.57      8
ATOM   2183  C    ASP B  60      14.491  80.426 106.915  1.00148.12      6
ATOM   2184  O    ASP B  60      13.353  80.887 106.839  1.00148.37      8
ATOM   2185  N    VAL B  61      15.503  80.873 106.175  1.00 35.04      7
ATOM   2186  CA   VAL B  61      15.327  82.001 105.258  1.00 34.64      6
ATOM   2187  CB   VAL B  61      16.673  82.667 104.912  1.00 65.03      6
ATOM   2188  CG1  VAL B  61      16.416  83.941 104.101  1.00 64.61      6
ATOM   2189  CG2  VAL B  61      17.452  82.984 106.194  1.00 65.20      6
ATOM   2190  C    VAL B  61      14.586  81.755 103.955  1.00 35.20      6
ATOM   2191  O    VAL B  61      14.997  80.944 103.119  1.00 34.12      8
ATOM   2192  N    LEU B  62      13.501  82.513 103.807  1.00 82.75      7
ATOM   2193  CA   LEU B  62      12.609  82.476 102.656  1.00 84.93      6
ATOM   2194  CB   LEU B  62      11.786  83.768 102.600  1.00180.46      6
ATOM   2195  CG   LEU B  62      10.976  84.239 103.811  1.00182.79      6
ATOM   2196  CD1  LEU B  62      10.711  85.733 103.688  1.00183.84      6
ATOM   2197  CD2  LEU B  62       9.670  83.473 103.903  1.00183.75      6
ATOM   2198  C    LEU B  62      13.343  82.321 101.329  1.00 85.94      6
ATOM   2199  O    LEU B  62      13.969  81.295 101.055  1.00 86.60      8
ATOM   2200  N    HIS B  63      13.240  83.375 100.521  1.00 90.72      7
ATOM   2201  CA   HIS B  63      13.831  83.481  99.189  1.00 91.10      6
ATOM   2202  CB   HIS B  63      13.728  84.933  98.730  1.00157.38      6
ATOM   2203  CG   HIS B  63      12.415  85.571  99.067  1.00158.97      6
ATOM   2204  CD2  HIS B  63      12.118  86.675  99.794  1.00159.64      6
ATOM   2205  ND1  HIS B  63      11.207  85.053  98.650  1.00160.02      7
ATOM   2206  CE1  HIS B  63      10.224  85.810  99.104  1.00160.35      6
ATOM   2207  NE2  HIS B  63      10.750  86.801  99.802  1.00160.12      7
ATOM   2208  C    HIS B  63      15.270  82.984  99.043  1.00 91.43      6
ATOM   2209  O    HIS B  63      15.876  82.494  99.995  1.00 91.89      8
ATOM   2210  N    GLU B  64      15.811  83.128  97.837  1.00 84.24      7
ATOM   2211  CA   GLU B  64      17.157  82.657  97.525  1.00 83.49      6
ATOM   2212  CB   GLU B  64      17.241  82.319  96.036  1.00208.87      6
ATOM   2213  CG   GLU B  64      18.573  81.744  95.598  1.00208.87      6
ATOM   2214  CD   GLU B  64      18.638  81.523  94.101  1.00208.87      6
ATOM   2215  OE1  GLU B  64      18.580  82.520  93.349  1.00208.87      8
ATOM   2216  OE2  GLU B  64      18.743  80.353  93.675  1.00208.87      8
ATOM   2217  C    GLU B  64      18.304  83.597  97.885  1.00 82.97      6
ATOM   2218  O    GLU B  64      19.358  83.150  98.336  1.00 83.53      8
ATOM   2219  N    PHE B  65      18.105  84.891  97.665  1.00 95.11      7
ATOM   2220  CA   PHE B  65      19.132  85.886  97.957  1.00 92.98      6
ATOM   2221  CB   PHE B  65      18.695  87.244  97.399  1.00165.17      6
ATOM   2222  CG   PHE B  65      17.226  87.531  97.573  1.00168.10      6
ATOM   2223  CD1  PHE B  65      16.702  87.847  98.824  1.00168.98      6
ATOM   2224  CD2  PHE B  65      16.365  87.485  96.480  1.00169.74      6
ATOM   2225  CE1  PHE B  65      15.343  88.112  98.982  1.00170.31      6
ATOM   2226  CE2  PHE B  65      15.004  87.748  96.627  1.00170.48      6
ATOM   2227  CZ   PHE B  65      14.493  88.063  97.880  1.00170.73      6
ATOM   2228  C    PHE B  65      19.436  85.991  99.452  1.00 91.95      6
ATOM   2229  O    PHE B  65      19.001  86.928 100.122  1.00 91.00      8
ATOM   2230  N    SER B  66      20.197  85.027  99.967  1.00 48.43      7
ATOM   2231  CA   SER B  66      20.549  85.003 101.381  1.00 46.27      6
```

40

```
ATOM   2232  CB   SER B  66      19.443  84.347 102.204  1.00 57.99      6
ATOM   2233  OG   SER B  66      19.889  84.077 103.529  1.00 58.99      8
ATOM   2234  C    SER B  66      21.840  84.288 101.707  1.00 45.72      6
ATOM   2235  O    SER B  66      22.649  83.984 100.838  1.00 45.98      8
ATOM   2236  N    THR B  67      21.996  84.016 102.993  1.00 94.64      7
ATOM   2237  CA   THR B  67      23.150  83.345 103.537  1.00 94.16      6
ATOM   2238  CB   THR B  67      24.293  84.344 103.771  1.00 57.09      6
ATOM   2239  OG1  THR B  67      24.952  84.609 102.528  1.00 58.32      8
ATOM   2240  CG2  THR B  67      25.284  83.809 104.790  1.00 56.21      6
ATOM   2241  C    THR B  67      22.701  82.780 104.870  1.00 95.18      6
ATOM   2242  O    THR B  67      22.184  83.517 105.708  1.00 95.70      8
ATOM   2243  N    ILE B  68      22.875  81.475 105.056  1.00 83.60      7
ATOM   2244  CA   ILE B  68      22.499  80.829 106.308  1.00 82.48      6
ATOM   2245  CB   ILE B  68      21.843  79.447 106.069  1.00114.37      6
ATOM   2246  CG2  ILE B  68      21.663  78.724 107.390  1.00114.07      6
ATOM   2247  CG1  ILE B  68      20.469  79.618 105.413  1.00115.44      6
ATOM   2248  CD1  ILE B  68      20.500  80.251 104.039  1.00117.44      6
ATOM   2249  C    ILE B  68      23.764  80.651 107.135  1.00 82.86      6
ATOM   2250  O    ILE B  68      24.690  79.955 106.716  1.00 82.59      8
ATOM   2251  N    PRO B  69      23.824  81.301 108.312  1.00 80.58      7
ATOM   2252  CD   PRO B  69      22.772  82.186 108.846  1.00122.52      6
ATOM   2253  CA   PRO B  69      24.964  81.245 109.234  1.00 79.17      6
ATOM   2254  CB   PRO B  69      24.443  81.980 110.465  1.00122.46      6
ATOM   2255  CG   PRO B  69      23.526  82.995 109.875  1.00122.69      6
ATOM   2256  C    PRO B  69      25.420  79.822 109.557  1.00 79.52      6
ATOM   2257  O    PRO B  69      24.619  78.884 109.563  1.00 79.86      8
ATOM   2258  N    GLY B  70      26.713  79.670 109.830  1.00 87.91      7
ATOM   2259  CA   GLY B  70      27.250  78.359 110.143  1.00 86.45      6
ATOM   2260  C    GLY B  70      27.129  77.449 108.943  1.00 86.68      6
ATOM   2261  O    GLY B  70      26.694  76.305 109.069  1.00 86.14      8
ATOM   2262  N    VAL B  71      27.505  77.985 107.780  1.00139.89      7
ATOM   2263  CA   VAL B  71      27.471  77.287 106.491  1.00139.35      6
ATOM   2264  CB   VAL B  71      26.024  77.202 105.922  1.00 72.29      6
ATOM   2265  CG1  VAL B  71      26.024  76.399 104.645  1.00 73.35      6
ATOM   2266  CG2  VAL B  71      25.089  76.552 106.922  1.00 71.63      6
ATOM   2267  C    VAL B  71      28.350  78.065 105.491  1.00139.62      6
ATOM   2268  O    VAL B  71      27.965  79.138 105.023  1.00139.95      8
ATOM   2269  N    LYS B  72      29.518  77.510 105.167  1.00 95.33      7
ATOM   2270  CA   LYS B  72      30.485  78.134 104.259  1.00 94.09      6
ATOM   2271  CB   LYS B  72      31.643  77.172 103.957  1.00 76.78      6
ATOM   2272  CG   LYS B  72      32.731  77.814 103.081  1.00 77.29      6
ATOM   2273  CD   LYS B  72      33.940  76.909 102.803  1.00 77.12      6
ATOM   2274  CE   LYS B  72      34.947  77.591 101.853  1.00 75.39      6
ATOM   2275  NZ   LYS B  72      36.160  76.765 101.616  1.00 73.12      7
ATOM   2276  C    LYS B  72      29.966  78.685 102.934  1.00 93.33      6
ATOM   2277  O    LYS B  72      30.579  79.586 102.358  1.00 93.92      8
ATOM   2278  N    GLU B  73      28.858  78.151 102.437  1.00 48.05      7
ATOM   2279  CA   GLU B  73      28.303  78.619 101.171  1.00 46.06      6
ATOM   2280  CB   GLU B  73      27.736  77.444 100.379  1.00 61.85      6
ATOM   2281  CG   GLU B  73      28.775  76.626  99.653  1.00 62.12      6
ATOM   2282  CD   GLU B  73      29.762  75.946 100.576  1.00 61.73      6
ATOM   2283  OE1  GLU B  73      30.707  75.331 100.051  1.00 60.25      8
ATOM   2284  OE2  GLU B  73      29.602  76.016 101.812  1.00 62.43      8
ATOM   2285  C    GLU B  73      27.215  79.662 101.360  1.00 45.75      6
ATOM   2286  O    GLU B  73      27.114  80.294 102.413  1.00 46.03      8
ATOM   2287  N    ASP B  74      26.413  79.843 100.317  1.00 48.39      7
```

41

```
ATOM   2288  CA   ASP B   74      25.303  80.783 100.336  1.00 48.20      6
ATOM   2289  CB   ASP B   74      25.754  82.199  99.943  1.00100.71      6
ATOM   2290  CG   ASP B   74      26.104  82.330  98.459  1.00103.97      6
ATOM   2291  OD1  ASP B   74      27.091  81.708  98.015  1.00106.12      8
ATOM   2292  OD2  ASP B   74      25.393  83.062  97.734  1.00104.82      8
ATOM   2293  C    ASP B   74      24.294  80.277  99.333  1.00 47.37      6
ATOM   2294  O    ASP B   74      24.651  79.984  98.199  1.00 47.73      8
ATOM   2295  N    VAL B   75      23.042  80.169  99.760  1.00 64.39      7
ATOM   2296  CA   VAL B   75      21.953  79.695  98.909  1.00 63.43      6
ATOM   2297  CB   VAL B   75      20.794  80.729  98.850  1.00 47.93      6
ATOM   2298  CG1  VAL B   75      19.467  80.017  98.584  1.00 47.57      6
ATOM   2299  CG2  VAL B   75      20.724  81.509 100.145  1.00 48.16      6
ATOM   2300  C    VAL B   75      22.367  79.352  97.472  1.00 63.96      6
ATOM   2301  O    VAL B   75      22.440  78.179  97.115  1.00 64.80      8
ATOM   2302  N    VAL B   76      22.650  80.362  96.653  1.00 56.51      7
ATOM   2303  CA   VAL B   76      23.028  80.120  95.257  1.00 56.80      6
ATOM   2304  CB   VAL B   76      23.573  81.398  94.585  1.00 61.33      6
ATOM   2305  CG1  VAL B   76      23.925  81.118  93.128  1.00 62.03      6
ATOM   2306  CG2  VAL B   76      22.537  82.490  94.658  1.00 60.79      6
ATOM   2307  C    VAL B   76      24.036  78.993  95.028  1.00 57.25      6
ATOM   2308  O    VAL B   76      23.783  78.110  94.212  1.00 58.30      8
ATOM   2309  N    GLU B   77      25.171  79.027  95.729  1.00 35.97      7
ATOM   2310  CA   GLU B   77      26.194  77.995  95.582  1.00 35.90      6
ATOM   2311  CB   GLU B   77      27.321  78.183  96.582  1.00 69.87      6
ATOM   2312  CG   GLU B   77      28.508  77.299  96.281  1.00 73.10      6
ATOM   2313  CD   GLU B   77      29.192  77.696  94.990  1.00 76.53      6
ATOM   2314  OE1  GLU B   77      28.482  77.915  93.986  1.00 78.26      8
ATOM   2315  OE2  GLU B   77      30.439  77.788  94.972  1.00 78.38      8
ATOM   2316  C    GLU B   77      25.564  76.640  95.805  1.00 36.73      6
ATOM   2317  O    GLU B   77      25.716  75.749  94.982  1.00 38.73      8
ATOM   2318  N    ILE B   78      24.863  76.479  96.926  1.00 55.17      7
ATOM   2319  CA   ILE B   78      24.170  75.224  97.211  1.00 53.98      6
ATOM   2320  CB   ILE B   78      23.296  75.295  98.500  1.00 56.27      6
ATOM   2321  CG2  ILE B   78      22.354  74.123  98.541  1.00 57.67      6
ATOM   2322  CG1  ILE B   78      24.160  75.269  99.767  1.00 56.37      6
ATOM   2323  CD1  ILE B   78      24.404  76.621 100.397  1.00 56.85      6
ATOM   2324  C    ILE B   78      23.237  75.032  96.024  1.00 53.97      6
ATOM   2325  O    ILE B   78      23.360  74.061  95.281  1.00 54.16      8
ATOM   2326  N    ILE B   79      22.319  75.987  95.857  1.00 65.75      7
ATOM   2327  CA   ILE B   79      21.336  75.997  94.768  1.00 65.99      6
ATOM   2328  CB   ILE B   79      20.848  77.444  94.451  1.00 69.77      6
ATOM   2329  CG2  ILE B   79      20.368  77.526  93.008  1.00 69.39      6
ATOM   2330  CG1  ILE B   79      19.730  77.872  95.415  1.00 70.43      6
ATOM   2331  CD1  ILE B   79      18.324  77.478  94.988  1.00 73.67      6
ATOM   2332  C    ILE B   79      21.931  75.424  93.496  1.00 67.00      6
ATOM   2333  O    ILE B   79      21.353  74.534  92.878  1.00 67.69      8
ATOM   2334  N    LEU B   80      23.086  75.956  93.108  1.00 70.57      7
ATOM   2335  CA   LEU B   80      23.781  75.513  91.907  1.00 69.02      6
ATOM   2336  CB   LEU B   80      24.942  76.467  91.597  1.00 26.59      6
ATOM   2337  CG   LEU B   80      24.585  77.959  91.502  1.00 24.04      6
ATOM   2338  CD1  LEU B   80      25.744  78.700  90.914  1.00 25.12      6
ATOM   2339  CD2  LEU B   80      23.360  78.177  90.643  1.00 21.84      6
ATOM   2340  C    LEU B   80      24.270  74.073  92.079  1.00 69.55      6
ATOM   2341  O    LEU B   80      24.059  73.241  91.203  1.00 70.67      8
ATOM   2342  N    ASN B   81      24.917  73.777  93.202  1.00 32.83      7
ATOM   2343  CA   ASN B   81      25.371  72.416  93.465  1.00 32.74      6
```

42

```
ATOM   2344   CB   ASN B   81      25.758  72.241  94.927  1.00 53.32      6
ATOM   2345   CG   ASN B   81      27.021  72.955  95.280  1.00 55.49      6
ATOM   2346   OD1  ASN B   81      28.101  72.609  94.805  1.00 55.56      8
ATOM   2347   ND2  ASN B   81      26.902  73.964  96.123  1.00 57.98      7
ATOM   2348   C    ASN B   81      24.210  71.474  93.185  1.00 32.80      6
ATOM   2349   O    ASN B   81      24.279  70.598  92.322  1.00 32.36      8
ATOM   2350   N    LEU B   82      23.142  71.656  93.943  1.00 63.41      7
ATOM   2351   CA   LEU B   82      21.959  70.843  93.784  1.00 63.31      6
ATOM   2352   CB   LEU B   82      20.752  71.580  94.373  1.00 53.67      6
ATOM   2353   CG   LEU B   82      19.575  70.783  94.940  1.00 53.30      6
ATOM   2354   CD1  LEU B   82      20.075  69.750  95.942  1.00 54.27      6
ATOM   2355   CD2  LEU B   82      18.611  71.744  95.612  1.00 52.12      6
ATOM   2356   C    LEU B   82      21.759  70.585  92.293  1.00 63.65      6
ATOM   2357   O    LEU B   82      21.578  69.447  91.883  1.00 63.99      8
ATOM   2358   N    LYS B   83      21.827  71.642  91.484  1.00 50.46      7
ATOM   2359   CA   LYS B   83      21.639  71.525  90.036  1.00 50.43      6
ATOM   2360   CB   LYS B   83      21.912  72.862  89.345  1.00 61.05      6
ATOM   2361   CG   LYS B   83      20.787  73.880  89.423  1.00 61.79      6
ATOM   2362   CD   LYS B   83      21.137  75.141  88.614  1.00 63.49      6
ATOM   2363   CE   LYS B   83      21.394  74.820  87.123  1.00 65.14      6
ATOM   2364   NZ   LYS B   83      21.635  76.001  86.224  1.00 64.59      7
ATOM   2365   C    LYS B   83      22.508  70.445  89.394  1.00 50.69      6
ATOM   2366   O    LYS B   83      22.093  69.813  88.426  1.00 50.40      8
ATOM   2367   N    GLU B   84      23.710  70.238  89.922  1.00 72.59      7
ATOM   2368   CA   GLU B   84      24.602  69.220  89.384  1.00 73.33      6
ATOM   2369   CB   GLU B   84      26.060  69.599  89.630  1.00 68.79      6
ATOM   2370   CG   GLU B   84      26.556  70.775  88.821  1.00 68.46      6
ATOM   2371   CD   GLU B   84      28.062  70.971  88.946  1.00 67.59      6
ATOM   2372   OE1  GLU B   84      28.553  71.199  90.078  1.00 66.17      8
ATOM   2373   OE2  GLU B   84      28.754  70.894  87.904  1.00 66.71      8
ATOM   2374   C    GLU B   84      24.336  67.853  90.009  1.00 74.24      6
ATOM   2375   O    GLU B   84      25.118  66.920  89.839  1.00 75.23      8
ATOM   2376   N    LEU B   85      23.236  67.744  90.744  1.00 56.01      7
ATOM   2377   CA   LEU B   85      22.853  66.495  91.398  1.00 55.89      6
ATOM   2378   CB   LEU B   85      21.736  66.768  92.400  1.00 82.41      6
ATOM   2379   CG   LEU B   85      21.185  65.612  93.226  1.00 83.62      6
ATOM   2380   CD1  LEU B   85      22.252  65.113  94.193  1.00 84.58      6
ATOM   2381   CD2  LEU B   85      19.956  66.085  93.988  1.00 83.69      6
ATOM   2382   C    LEU B   85      22.353  65.519  90.346  1.00 56.47      6
ATOM   2383   O    LEU B   85      21.671  65.932  89.412  1.00 56.46      8
ATOM   2384   N    VAL B   86      22.686  64.235  90.482  1.00 58.30      7
ATOM   2385   CA   VAL B   86      22.227  63.229  89.516  1.00 58.92      6
ATOM   2386   CB   VAL B   86      23.416  62.561  88.752  1.00 28.71      6
ATOM   2387   CG1  VAL B   86      22.940  62.023  87.403  1.00 28.70      6
ATOM   2388   CG2  VAL B   86      24.543  63.547  88.545  1.00 26.79      6
ATOM   2389   C    VAL B   86      21.422  62.141  90.237  1.00 60.35      6
ATOM   2390   O    VAL B   86      21.984  61.253  90.878  1.00 59.96      8
ATOM   2391   N    VAL B   87      20.101  62.229  90.135  1.00 51.71      7
ATOM   2392   CA   VAL B   87      19.212  61.267  90.775  1.00 53.76      6
ATOM   2393   CB   VAL B   87      17.954  61.954  91.369  1.00 59.83      6
ATOM   2394   CG1  VAL B   87      17.010  60.920  91.937  1.00 60.81      6
ATOM   2395   CG2  VAL B   87      18.352  62.914  92.461  1.00 60.06      6
ATOM   2396   C    VAL B   87      18.753  60.286  89.722  1.00 56.80      6
ATOM   2397   O    VAL B   87      18.842  60.573  88.532  1.00 56.99      8
ATOM   2398   N    ARG B   88      18.263  59.133  90.167  1.00109.23      7
ATOM   2399   CA   ARG B   88      17.756  58.084  89.282  1.00111.52      6
```

ATOM	2400	CB	ARG	B	88	18.820	57.022	89.069	1.00100.13	6
ATOM	2401	CG	ARG	B	88	18.348	55.818	88.316	1.00101.90	6
ATOM	2402	CD	ARG	B	88	19.463	54.818	88.303	1.00103.39	7
ATOM	2403	NE	ARG	B	88	19.096	53.583	87.638	1.00105.95	6
ATOM	2404	CZ	ARG	B	88	19.944	52.583	87.443	1.00107.64	7
ATOM	2405	NH1	ARG	B	88	21.198	52.691	87.869	1.00108.21	7
ATOM	2406	NH2	ARG	B	88	19.543	51.483	86.820	1.00108.48	6
ATOM	2407	C	ARG	B	88	16.541	57.465	89.958	1.00113.37	8
ATOM	2408	O	ARG	B	88	16.484	57.404	91.186	1.00113.54	7
ATOM	2409	N	PHE	B	89	15.578	56.985	89.177	1.00115.12	6
ATOM	2410	CA	PHE	B	89	14.381	56.437	89.796	1.00116.99	6
ATOM	2411	CB	PHE	B	89	13.196	57.380	89.500	1.00 73.14	6
ATOM	2412	CG	PHE	B	89	12.686	57.336	88.074	1.00 73.17	6
ATOM	2413	CD1	PHE	B	89	11.592	58.120	87.704	1.00 73.82	6
ATOM	2414	CD2	PHE	B	89	13.253	56.495	87.120	1.00 73.06	6
ATOM	2415	CE1	PHE	B	89	11.064	58.069	86.418	1.00 73.82	6
ATOM	2416	CE2	PHE	B	89	12.735	56.432	85.827	1.00 73.37	6
ATOM	2417	CZ	PHE	B	89	11.635	57.222	85.476	1.00 73.73	6
ATOM	2418	C	PHE	B	89	14.001	54.976	89.506	1.00119.15	8
ATOM	2419	O	PHE	B	89	12.822	54.619	89.549	1.00119.44	7
ATOM	2420	N	LEU	B	90	14.995	54.128	89.249	1.00130.10	6
ATOM	2421	CA	LEU	B	90	14.734	52.720	88.949	1.00131.31	6
ATOM	2422	CB	LEU	B	90	13.990	52.058	90.108	1.00161.35	6
ATOM	2423	CG	LEU	B	90	14.742	52.079	91.438	1.00162.04	6
ATOM	2424	CD1	LEU	B	90	13.912	51.378	92.491	1.00162.42	6
ATOM	2425	CD2	LEU	B	90	16.090	51.392	91.286	1.00162.37	8
ATOM	2426	C	LEU	B	90	13.906	52.648	87.671	1.00132.86	7
ATOM	2427	O	LEU	B	90	14.464	52.494	86.584	1.00132.98	6
ATOM	2428	N	ASP	B	91	12.582	52.752	87.803	1.00128.55	6
ATOM	2429	CA	ASP	B	91	11.689	52.763	86.638	1.00128.88	6
ATOM	2430	CB	ASP	B	91	12.144	51.738	85.594	1.00154.78	6
ATOM	2431	CG	ASP	B	91	11.860	52.197	84.172	1.00155.70	8
ATOM	2432	OD1	ASP	B	91	10.676	52.416	83.835	1.00155.84	8
ATOM	2433	OD2	ASP	B	91	12.824	52.355	83.390	1.00156.27	6
ATOM	2434	C	ASP	B	91	10.191	52.576	86.878	1.00129.05	8
ATOM	2435	O	ASP	B	91	9.505	51.976	86.055	1.00129.10	7
ATOM	2436	N	PRO	B	92	9.659	53.079	88.004	1.00 52.86	6
ATOM	2437	CD	PRO	B	92	10.297	53.428	89.286	1.00163.39	6
ATOM	2438	CA	PRO	B	92	8.217	52.880	88.180	1.00 52.64	6
ATOM	2439	CB	PRO	B	92	8.073	52.807	89.694	1.00163.65	6
ATOM	2440	CG	PRO	B	92	9.110	53.772	90.155	1.00163.70	6
ATOM	2441	C	PRO	B	92	7.411	54.028	87.566	1.00 52.65	8
ATOM	2442	O	PRO	B	92	7.342	54.172	86.345	1.00 52.29	7
ATOM	2443	N	ARG	B	93	6.794	54.824	88.433	1.00159.93	6
ATOM	2444	CA	ARG	B	93	6.006	55.993	88.051	1.00160.97	6
ATOM	2445	CB	ARG	B	93	4.510	55.665	88.086	1.00102.93	6
ATOM	2446	CG	ARG	B	93	3.589	56.842	87.749	1.00103.89	6
ATOM	2447	CD	ARG	B	93	2.114	56.512	88.042	1.00104.42	7
ATOM	2448	NE	ARG	B	93	1.273	57.709	88.143	1.00103.76	6
ATOM	2449	CZ	ARG	B	93	0.003	57.706	88.545	1.00103.70	7
ATOM	2450	NH1	ARG	B	93	-0.586	56.568	88.885	1.00103.43	7
ATOM	2451	NH2	ARG	B	93	-0.678	58.842	88.616	1.00104.03	6
ATOM	2452	C	ARG	B	93	6.380	56.981	89.155	1.00160.96	8
ATOM	2453	O	ARG	B	93	5.556	57.381	89.974	1.00161.51	7
ATOM	2454	N	TRP	B	94	7.657	57.349	89.151	1.00171.63	6
ATOM	2455	CA	TRP	B	94	8.276	58.230	90.139	1.00170.47	6

ATOM	2456	CB	TRP	B	94	9.763	57.888	90.163	1.00	167.50	6
ATOM	2457	CG	TRP	B	94	10.568	58.559	91.201	1.00	170.85	6
ATOM	2458	CD2	TRP	B	94	11.423	59.692	91.019	1.00	171.98	6
ATOM	2459	CE2	TRP	B	94	12.024	59.963	92.262	1.00	173.23	6
ATOM	2460	CE3	TRP	B	94	11.740	60.505	89.922	1.00	171.41	6
ATOM	2461	CD1	TRP	B	94	10.676	58.200	92.507	1.00	172.08	6
ATOM	2462	NE1	TRP	B	94	11.550	59.036	93.153	1.00	173.59	7
ATOM	2463	CZ2	TRP	B	94	12.927	61.013	92.446	1.00	174.27	6
ATOM	2464	CZ3	TRP	B	94	12.637	61.549	90.103	1.00	172.06	6
ATOM	2465	CH2	TRP	B	94	13.220	61.792	91.356	1.00	173.80	6
ATOM	2466	C	TRP	B	94	8.086	59.748	89.972	1.00	168.43	6
ATOM	2467	O	TRP	B	94	7.625	60.219	88.929	1.00	168.12	8
ATOM	2468	N	ARG	B	95	8.458	60.489	91.022	1.00	108.70	7
ATOM	2469	CA	ARG	B	95	8.374	61.957	91.100	1.00	105.59	6
ATOM	2470	CB	ARG	B	95	7.074	62.460	90.462	1.00	152.49	6
ATOM	2471	CG	ARG	B	95	5.833	61.748	90.970	1.00	153.87	6
ATOM	2472	CD	ARG	B	95	4.759	62.732	91.395	1.00	154.72	6
ATOM	2473	NE	ARG	B	95	3.626	62.056	92.019	1.00	156.37	7
ATOM	2474	CZ	ARG	B	95	2.569	62.682	92.525	1.00	157.56	6
ATOM	2475	NH1	ARG	B	95	2.494	64.007	92.483	1.00	158.22	7
ATOM	2476	NH2	ARG	B	95	1.586	61.983	93.077	1.00	158.25	7
ATOM	2477	C	ARG	B	95	8.405	62.356	92.583	1.00	103.14	6
ATOM	2478	O	ARG	B	95	7.460	62.954	93.096	1.00	103.69	8
ATOM	2479	N	THR	B	96	9.509	62.045	93.258	1.00	76.25	7
ATOM	2480	CA	THR	B	96	9.641	62.303	94.694	1.00	73.20	6
ATOM	2481	CB	THR	B	96	10.349	61.171	95.379	1.00	62.79	6
ATOM	2482	OG1	THR	B	96	11.738	61.215	95.027	1.00	60.49	8
ATOM	2483	CG2	THR	B	96	9.727	59.850	94.975	1.00	64.35	6
ATOM	2484	C	THR	B	96	10.340	63.545	95.211	1.00	72.96	6
ATOM	2485	O	THR	B	96	10.643	64.476	94.470	1.00	73.64	8
ATOM	2486	N	THR	B	97	10.602	63.512	96.519	1.00	58.24	7
ATOM	2487	CA	THR	B	97	11.256	64.595	97.253	1.00	54.45	6
ATOM	2488	CB	THR	B	97	10.249	65.333	98.180	1.00	57.05	6
ATOM	2489	OG1	THR	B	97	9.224	65.949	97.388	1.00	57.08	8
ATOM	2490	CG2	THR	B	97	10.957	66.393	99.012	1.00	57.27	6
ATOM	2491	C	THR	B	97	12.391	64.041	98.118	1.00	53.16	6
ATOM	2492	O	THR	B	97	12.416	62.857	98.457	1.00	51.75	8
ATOM	2493	N	LEU	B	98	13.321	64.918	98.473	1.00	49.32	7
ATOM	2494	CA	LEU	B	98	14.466	64.560	99.290	1.00	48.21	6
ATOM	2495	CB	LEU	B	98	15.746	64.676	98.468	1.00	126.78	6
ATOM	2496	CG	LEU	B	98	15.672	64.157	97.032	1.00	128.47	6
ATOM	2497	CD1	LEU	B	98	16.965	64.491	96.312	1.00	129.98	6
ATOM	2498	CD2	LEU	B	98	15.415	62.658	97.030	1.00	129.19	6
ATOM	2499	C	LEU	B	98	14.526	65.543	100.440	1.00	48.83	6
ATOM	2500	O	LEU	B	98	14.054	66.669	100.322	1.00	47.56	8
ATOM	2501	N	ILE	B	99	15.107	65.115	101.551	1.00	81.01	7
ATOM	2502	CA	ILE	B	99	15.238	65.973	102.718	1.00	82.32	6
ATOM	2503	CB	ILE	B	99	14.221	65.573	103.785	1.00	105.79	6
ATOM	2504	CG2	ILE	B	99	14.372	66.445	105.007	1.00	105.81	6
ATOM	2505	CG1	ILE	B	99	12.813	65.723	103.205	1.00	105.76	6
ATOM	2506	CD1	ILE	B	99	11.713	65.364	104.160	1.00	105.01	6
ATOM	2507	C	ILE	B	99	16.669	65.842	103.232	1.00	85.52	6
ATOM	2508	O	ILE	B	99	17.411	64.993	102.749	1.00	86.30	8
ATOM	2509	N	LEU	B	100	17.076	66.659	104.199	1.00	129.42	7
ATOM	2510	CA	LEU	B	100	18.455	66.571	104.660	1.00	130.47	6
ATOM	2511	CB	LEU	B	100	19.299	67.559	103.854	1.00	82.55	6

45

```
ATOM   2512  CG   LEU B 100      20.786  67.238 103.702  1.00 85.11      6
ATOM   2513  CD1  LEU B 100      20.965  65.792 103.280  1.00 85.38      6
ATOM   2514  CD2  LEU B 100      21.403  68.169 102.675  1.00 86.72      6
ATOM   2515  C    LEU B 100      18.701  66.769 106.159  1.00132.38      6
ATOM   2516  O    LEU B 100      17.874  67.342 106.870  1.00132.51      8
ATOM   2517  N    ALA B 101      19.856  66.285 106.619  1.00 98.92      7
ATOM   2518  CA   ALA B 101      20.270  66.373 108.022  1.00 99.56      6
ATOM   2519  CB   ALA B 101      20.205  64.989 108.662  1.00 57.99      6
ATOM   2520  C    ALA B 101      21.694  66.933 108.119  1.00100.36      6
ATOM   2521  O    ALA B 101      22.639  66.340 107.594  1.00100.49      8
ATOM   2522  N    ALA B 102      21.852  68.064 108.803  1.00 90.68      7
ATOM   2523  CA   ALA B 102      23.164  68.691 108.920  1.00 91.70      6
ATOM   2524  CB   ALA B 102      23.083  70.128 108.424  1.00114.01      6
ATOM   2525  C    ALA B 102      23.796  68.656 110.312  1.00 94.60      6
ATOM   2526  O    ALA B 102      23.135  68.904 111.321  1.00 95.30      8
ATOM   2527  N    ALA B 103      25.095  68.367 110.342  1.00107.85      7
ATOM   2528  CA   ALA B 103      25.858  68.287 111.581  1.00109.82      6
ATOM   2529  CB   ALA B 103      26.539  66.929 111.675  1.00162.25      6
ATOM   2530  C    ALA B 103      26.900  69.401 111.696  1.00110.77      6
ATOM   2531  O    ALA B 103      26.803  70.426 111.027  1.00111.66      8
ATOM   2532  N    GLY B 104      27.903  69.183 112.542  1.00119.02      7
ATOM   2533  CA   GLY B 104      28.945  70.174 112.756  1.00117.56      6
ATOM   2534  C    GLY B 104      29.728  70.570 111.522  1.00118.84      6
ATOM   2535  O    GLY B 104      29.191  70.570 110.414  1.00118.81      8
ATOM   2536  N    PRO B 105      31.018  70.901 111.685  1.00112.08      7
ATOM   2537  CD   PRO B 105      31.762  70.769 112.949  1.00147.49      6
ATOM   2538  CA   PRO B 105      31.913  71.313 110.596  1.00111.87      6
ATOM   2539  CB   PRO B 105      33.275  71.415 111.290  1.00147.97      6
ATOM   2540  CG   PRO B 105      33.148  70.476 112.457  1.00147.73      6
ATOM   2541  C    PRO B 105      31.959  70.448 109.326  1.00112.31      6
ATOM   2542  O    PRO B 105      32.227  70.955 108.238  1.00112.30      8
ATOM   2543  N    LYS B 106      31.690  69.155 109.466  1.00131.56      7
ATOM   2544  CA   LYS B 106      31.717  68.219 108.341  1.00130.72      6
ATOM   2545  CB   LYS B 106      31.027  66.908 108.742  1.00199.00      6
ATOM   2546  CG   LYS B 106      31.550  66.288 110.037  1.00199.67      6
ATOM   2547  CD   LYS B 106      33.040  65.977 109.952  1.00200.50      6
ATOM   2548  CE   LYS B 106      33.571  65.438 111.273  1.00201.17      6
ATOM   2549  NZ   LYS B 106      35.043  65.192 111.248  1.00201.26      7
ATOM   2550  C    LYS B 106      31.080  68.750 107.053  1.00130.11      6
ATOM   2551  O    LYS B 106      30.327  69.728 107.072  1.00130.08      8
ATOM   2552  N    GLU B 107      31.398  68.090 105.937  1.00 46.75      7
ATOM   2553  CA   GLU B 107      30.868  68.449 104.625  1.00 45.13      6
ATOM   2554  CB   GLU B 107      31.787  67.913 103.527  1.00152.42      6
ATOM   2555  CG   GLU B 107      33.188  68.481 103.569  1.00155.40      6
ATOM   2556  CD   GLU B 107      34.072  67.928 102.471  1.00158.04      6
ATOM   2557  OE1  GLU B 107      33.693  68.031 101.286  1.00159.56      8
ATOM   2558  OE2  GLU B 107      35.153  67.393 102.789  1.00159.19      8
ATOM   2559  C    GLU B 107      29.460  67.877 104.430  1.00 44.32      6
ATOM   2560  O    GLU B 107      29.110  66.857 105.012  1.00 43.92      8
ATOM   2561  N    VAL B 108      28.640  68.544 103.627  1.00 79.93      7
ATOM   2562  CA   VAL B 108      27.296  68.044 103.365  1.00 79.62      6
ATOM   2563  CB   VAL B 108      26.192  69.146 103.527  1.00 52.82      6
ATOM   2564  CG1  VAL B 108      24.827  68.584 103.184  1.00 51.88      6
ATOM   2565  CG2  VAL B 108      26.154  69.646 104.955  1.00 54.40      6
ATOM   2566  C    VAL B 108      27.309  67.539 101.933  1.00 79.72      6
ATOM   2567  O    VAL B 108      26.995  68.269 100.997  1.00 81.03      8
```

46

```
ATOM   2568  N   ARG B 109      27.712  66.286 101.773  1.00 72.39      7
ATOM   2569  CA  ARG B 109      27.761  65..661 100.462  1.00 71.53      6
ATOM   2570  CB  ARG B 109      28.515  64.336 100.543  1.00 75.22      6
ATOM   2571  CG  ARG B 109      29.606  64.308 101.590  1.00 74.93      6
ATOM   2572  CD  ARG B 109      30.934  63.925 100.968  1.00 74.31      6
ATOM   2573  NE  ARG B 109      32.020  63.961 101.939  1.00 74.49      7
ATOM   2574  CZ  ARG B 109      33.268  64.308 101.646  1.00 75.44      6
ATOM   2575  NH1 ARG B 109      33.589  64.654 100.404  1.00 75.90      7
ATOM   2576  NH2 ARG B 109      34.193  64.310 102.595  1.00 76.18      7
ATOM   2577  C   ARG B 109      26.331  65.381 100.012  1.00 71.79      6
ATOM   2578  O   ARG B 109      25.411  65.321 100.834  1.00 72.18      8
ATOM   2579  N   ALA B 110      26.137  65.199  98.712  1.00 60.56      7
ATOM   2580  CA  ALA B 110      24.809  64.890  98.204  1.00 60.62      6
ATOM   2581  CB  ALA B 110      24.823  64.883  96.680  1.00116.89      6
ATOM   2582  C   ALA B 110      24.408  63.511  98.745  1.00 60.99      6
ATOM   2583  O   ALA B 110      23.337  62.990  98.436  1.00 60.39      8
ATOM   2584  N   VAL B 111      25.287  62.928  99.556  1.00115.68      7
ATOM   2585  CA  VAL B 111      25.054  61.617 100.152  1.00116.53      6
ATOM   2586  CB  VAL B 111      26.381  60.972 100.638  1.00171.54      6
ATOM   2587  CG1 VAL B 111      26.136  59.533 101.086  1.00171.02      6
ATOM   2588  CG2 VAL B 111      27.422  61.017  99.534  1.00172.39      6
ATOM   2589  C   VAL B 111      24.117  61.739 101.348  1.00116.52      6
ATOM   2590  O   VAL B 111      23.121  61.021 101.446  1.00116.08      8
ATOM   2591  N   ASP B 112      24.446  62.653 102.257  1.00 93.32      7
ATOM   2592  CA  ASP B 112      23.649  62.875 103.458  1.00 93.72      6
ATOM   2593  CB  ASP B 112      23.949  64.258 104.039  1.00208.87      6
ATOM   2594  CG  ASP B 112      25.386  64.397 104.498  1.00208.87      6
ATOM   2595  OD1 ASP B 112      25.746  65.487 104.988  1.00208.87      8
ATOM   2596  OD2 ASP B 112      26.154  63.420 104.374  1.00208.87      8
ATOM   2597  C   ASP B 112      22.161  62.754 103.174  1.00 93.88      6
ATOM   2598  O   ASP B 112      21.403  62.243 104.000  1.00 93.49      8
ATOM   2599  N   PHE B 113      21.754  63.223 101.997  1.00140.32      7
ATOM   2600  CA  PHE B 113      20.357  63.175 101.587  1.00139.27      6
ATOM   2601  CB  PHE B 113      20.239  63.102 100.059  1.00 88.94      6
ATOM   2602  CG  PHE B 113      20.398  64.431  99.369  1.00 88.94      6
ATOM   2603  CD1 PHE B 113      21.643  65.049  99.284  1.00 89.09      6
ATOM   2604  CD2 PHE B 113      19.295  65.069  98.804  1.00 88.14      6
ATOM   2605  CE1 PHE B 113      21.792  66.285  98.645  1.00 89.50      6
ATOM   2606  CE2 PHE B 113      19.429  66.305  98.164  1.00 88.22      6
ATOM   2607  CZ  PHE B 113      20.685  66.915  98.084  1.00 89.00      6
ATOM   2608  C   PHE B 113      19.639  61.984 102.199  1.00139.39      6
ATOM   2609  O   PHE B 113      20.129  60.859 102.125  1.00139.80      8
ATOM   2610  N   THR B 114      18.491  62.257 102.819  1.00 89.09      7
ATOM   2611  CA  THR B 114      17.644  61.240 103.444  1.00 88.38      6
ATOM   2612  CB  THR B 114      16.190  61.743 103.574  1.00160.36      6
ATOM   2613  OG1 THR B 114      16.151  62.882 104.444  1.00160.56      8
ATOM   2614  CG2 THR B 114      15.290  60.644 104.121  1.00160.45      6
ATOM   2615  C   THR B 114      17.647  59.997 102.566  1.00 88.16      6
ATOM   2616  O   THR B 114      16.781  59.844 101.699  1.00 87.90      8
ATOM   2617  N   PRO B 115      18.610  59.086 102.802  1.00 71.69      7
ATOM   2618  CD  PRO B 115      19.412  59.070 104.038  1.00 97.44      6
ATOM   2619  CA  PRO B 115      18.791  57.832 102.060  1.00 71.19      6
ATOM   2620  CB  PRO B 115      19.749  57.035 102.953  1.00 97.50      6
ATOM   2621  CG  PRO B 115      19.505  57.603 104.325  1.00 97.83      6
ATOM   2622  C   PRO B 115      17.526  57.059 101.704  1.00 71.53      6
ATOM   2623  O   PRO B 115      17.328  55.931 102.147  1.00 71.33      8
```

47

ATOM	2624	N	SER	B	116	16.683	57.677	100.884	1.00	146.16	7
ATOM	2625	CA	SER	B	116	15.444	57.059	100.444	1.00	146.33	6
ATOM	2626	CB	SER	B	116	14.477	58.129	99.921	1.00	82.24	6
ATOM	2627	OG	SER	B	116	13.264	57.556	99.459	1.00	80.53	8
ATOM	2628	C	SER	B	116	15.770	56.058	99.341	1.00	147.50	6
ATOM	2629	O	SER	B	116	16.562	56.347	98.442	1.00	147.96	8
ATOM	2630	N	ALA	B	117	15.175	54.873	99.423	1.00	154.86	7
ATOM	2631	CA	ALA	B	117	15.407	53.841	98.422	1.00	154.61	6
ATOM	2632	CB	ALA	B	117	14.884	52.505	98.920	1.00	152.66	6
ATOM	2633	C	ALA	B	117	14.695	54.240	97.141	1.00	155.24	6
ATOM	2634	O	ALA	B	117	14.167	55.347	97.042	1.00	155.74	8
ATOM	2635	N	ASP	B	118	14.688	53.339	96.166	1.00	88.55	7
ATOM	2636	CA	ASP	B	118	14.037	53.588	94.887	1.00	88.64	6
ATOM	2637	CB	ASP	B	118	12.510	53.457	95.026	1.00	118.28	6
ATOM	2638	CG	ASP	B	118	11.902	54.515	95.930	1.00	119.07	6
ATOM	2639	OD1	ASP	B	118	11.985	54.381	97.170	1.00	119.87	8
ATOM	2640	OD2	ASP	B	118	11.341	55.489	95.389	1.00	119.11	8
ATOM	2641	C	ASP	B	118	14.385	54.950	94.293	1.00	88.12	6
ATOM	2642	O	ASP	B	118	13.772	55.391	93.323	1.00	87.96	8
ATOM	2643	N	VAL	B	119	15.382	55.603	94.882	1.00	77.20	7
ATOM	2644	CA	VAL	B	119	15.845	56.922	94.460	1.00	77.42	6
ATOM	2645	CB	VAL	B	119	14.940	58.045	95.043	1.00	51.81	6
ATOM	2646	CG1	VAL	B	119	15.413	59.407	94.585	1.00	51.41	6
ATOM	2647	CG2	VAL	B	119	13.512	57.829	94.616	1.00	51.98	6
ATOM	2648	C	VAL	B	119	17.258	57.079	95.018	1.00	77.32	6
ATOM	2649	O	VAL	B	119	17.451	57.666	96.085	1.00	77.65	8
ATOM	2650	N	GLU	B	120	18.244	56.535	94.314	1.00	142.78	7
ATOM	2651	CA	GLU	B	120	19.624	56.634	94.775	1.00	142.83	6
ATOM	2652	CB	GLU	B	120	20.325	55.271	94.669	1.00	114.74	6
ATOM	2653	CG	GLU	B	120	21.680	55.207	95.375	1.00	115.85	6
ATOM	2654	CD	GLU	B	120	22.377	53.868	95.205	1.00	117.05	6
ATOM	2655	OE1	GLU	B	120	22.751	53.520	94.063	1.00	117.57	8
ATOM	2656	OE2	GLU	B	120	22.546	53.160	96.217	1.00	117.15	8
ATOM	2657	C	GLU	B	120	20.398	57.684	93.979	1.00	143.11	6
ATOM	2658	O	GLU	B	120	20.442	57.645	92.746	1.00	143.41	8
ATOM	2659	N	ILE	B	121	20.991	58.631	94.699	1.00	89.19	7
ATOM	2660	CA	ILE	B	121	21.776	59.686	94.083	1.00	87.07	6
ATOM	2661	CB	ILE	B	121	22.254	60.715	95.143	1.00	137.58	6
ATOM	2662	CG2	ILE	B	121	23.420	61.516	94.608	1.00	138.22	6
ATOM	2663	CG1	ILE	B	121	21.112	61.665	95.515	1.00	137.41	6
ATOM	2664	CD1	ILE	B	121	19.941	61.000	96.191	1.00	137.99	6
ATOM	2665	C	ILE	B	121	22.980	59.075	93.365	1.00	86.78	6
ATOM	2666	O	ILE	B	121	23.945	58.627	93.996	1.00	85.86	8
ATOM	2667	N	MET	B	122	22.883	59.058	92.037	1.00	88.09	7
ATOM	2668	CA	MET	B	122	23.902	58.529	91.131	1.00	86.88	6
ATOM	2669	CB	MET	B	122	23.585	58.993	89.709	1.00	98.50	6
ATOM	2670	CG	MET	B	122	23.708	57.940	88.638	1.00	100.12	6
ATOM	2671	SD	MET	B	122	22.126	57.147	88.335	1.00	102.51	16
ATOM	2672	CE	MET	B	122	22.120	55.932	89.664	1.00	103.27	6
ATOM	2673	C	MET	B	122	25.310	59.009	91.489	1.00	86.12	6
ATOM	2674	O	MET	B	122	26.288	58.265	91.379	1.00	86.13	8
ATOM	2675	N	ASN	B	123	25.383	60.273	91.896	1.00	102.30	7
ATOM	2676	CA	ASN	B	123	26.628	60.944	92.259	1.00	100.44	6
ATOM	2677	CB	ASN	B	123	26.719	62.251	91.479	1.00	44.03	6
ATOM	2678	CG	ASN	B	123	25.395	62.996	91.442	1.00	43.06	6
ATOM	2679	OD1	ASN	B	123	24.329	62.407	91.626	1.00	41.66	8

ATOM	2680	ND2	ASN	B	123	25.457	64.299	91.184	1.00	42.20	7
ATOM	2681	C	ASN	B	123	26.728	61.212	93.763	1.00	100.01	6
ATOM	2682	O	ASN	B	123	26.158	62.172	94.278	1.00	100.97	8
ATOM	2683	N	PRO	B	124	27.492	60.375	94.479	1.00	40.54	7
ATOM	2684	CD	PRO	B	124	28.486	59.467	93.880	1.00	130.63	6
ATOM	2685	CA	PRO	B	124	27.699	60.466	95.923	1.00	38.86	6
ATOM	2686	CB	PRO	B	124	28.775	59.419	96.181	1.00	129.78	6
ATOM	2687	CG	PRO	B	124	29.578	59.461	94.923	1.00	130.60	6
ATOM	2688	C	PRO	B	124	28.124	61.831	96.413	1.00	38.04	6
ATOM	2689	O	PRO	B	124	27.353	62.534	97.059	1.00	37.31	8
ATOM	2690	N	ASP	B	125	29.361	62.191	96.100	1.00	96.40	7
ATOM	2691	CA	ASP	B	125	29.952	63.453	96.517	1.00	97.07	6
ATOM	2692	CB	ASP	B	125	31.336	63.556	95.900	1.00	90.27	6
ATOM	2693	CG	ASP	B	125	32.054	62.228	95.911	1.00	89.52	6
ATOM	2694	OD1	ASP	B	125	32.136	61.608	96.992	1.00	88.48	8
ATOM	2695	OD2	ASP	B	125	32.526	61.797	94.841	1.00	90.20	8
ATOM	2696	C	ASP	B	125	29.129	64.698	96.201	1.00	97.77	6
ATOM	2697	O	ASP	B	125	27.976	64.809	96.623	1.00	98.95	8
ATOM	2698	N	LEU	B	126	29.725	65.640	95.473	1.00	65.34	7
ATOM	2699	CA	LEU	B	126	29.038	66.882	95.114	1.00	64.52	6
ATOM	2700	CB	LEU	B	126	27.659	66.584	94.511	1.00	106.19	6
ATOM	2701	CG	LEU	B	126	26.828	67.776	94.031	1.00	106.27	6
ATOM	2702	CD1	LEU	B	126	27.577	68.543	92.956	1.00	106.51	6
ATOM	2703	CD2	LEU	B	126	25.506	67.274	93.489	1.00	106.74	6
ATOM	2704	C	LEU	B	126	28.884	67.736	96.363	1.00	64.64	6
ATOM	2705	O	LEU	B	126	27.928	67.584	97.121	1.00	65.05	8
ATOM	2706	N	HIS	B	127	29.831	68.641	96.558	1.00	66.42	7
ATOM	2707	CA	HIS	B	127	29.862	69.514	97.719	1.00	65.85	6
ATOM	2708	CB	HIS	B	127	30.625	70.790	97.376	1.00	101.20	6
ATOM	2709	CG	HIS	B	127	31.028	71.577	98.579	1.00	103.06	6
ATOM	2710	CD2	HIS	B	127	32.243	71.799	99.130	1.00	104.05	6
ATOM	2711	ND1	HIS	B	127	30.111	72.177	99.413	1.00	103.81	7
ATOM	2712	CE1	HIS	B	127	30.746	72.732	100.429	1.00	103.99	6
ATOM	2713	NE2	HIS	B	127	32.040	72.517	100.282	1.00	104.05	7
ATOM	2714	C	HIS	B	127	28.545	69.893	98.417	1.00	66.02	6
ATOM	2715	O	HIS	B	127	28.417	69.719	99.633	1.00	65.62	8
ATOM	2716	N	ILE	B	128	27.581	70.421	97.666	1.00	79.55	7
ATOM	2717	CA	ILE	B	128	26.292	70.848	98.230	1.00	79.18	6
ATOM	2718	CB	ILE	B	128	25.625	69.750	99.095	1.00	63.78	6
ATOM	2719	CG2	ILE	B	128	24.424	70.340	99.820	1.00	62.99	6
ATOM	2720	CG1	ILE	B	128	25.170	68.571	98.231	1.00	65.78	6
ATOM	2721	CD1	ILE	B	128	23.850	68.808	97.493	1.00	68.57	6
ATOM	2722	C	ILE	B	128	26.410	72.102	99.104	1.00	79.47	6
ATOM	2723	O	ILE	B	128	25.657	73.057	98.916	1.00	80.04	8
ATOM	2724	N	ALA	B	129	27.339	72.084	100.062	1.00	55.47	7
ATOM	2725	CA	ALA	B	129	27.575	73.206	100.980	1.00	54.86	6
ATOM	2726	CB	ALA	B	129	26.259	73.847	101.405	1.00	23.67	6
ATOM	2727	C	ALA	B	129	28.325	72.717	102.216	1.00	55.53	6
ATOM	2728	O	ALA	B	129	28.192	71.562	102.614	1.00	56.09	8
ATOM	2729	N	THR	B	130	29.114	73.607	102.814	1.00	50.17	7
ATOM	2730	CA	THR	B	130	29.904	73.287	104.000	1.00	50.46	6
ATOM	2731	CB	THR	B	130	31.407	73.620	103.808	1.00	75.42	6
ATOM	2732	OG1	THR	B	130	32.044	72.594	103.034	1.00	75.20	8
ATOM	2733	CG2	THR	B	130	32.099	73.726	105.145	1.00	75.41	6
ATOM	2734	C	THR	B	130	29.390	74.121	105.139	1.00	51.78	6
ATOM	2735	O	THR	B	130	29.106	75.296	104.958	1.00	50.09	8

49

```
ATOM   2736  N   LEU B 131      29.293  73.503 106.312  1.00126.03      7
ATOM   2737  CA  LEU B 131      28.801  74.154 107.525  1.00127.64      6
ATOM   2738  CB  LEU B 131      27.337  73.735 107.756  1.00 64.76      6
ATOM   2739  CG  LEU B 131      26.947  72.261 107.965  1.00 64.71      6
ATOM   2740  CD1 LEU B 131      25.510  72.063 107.494  1.00 64.74      6
ATOM   2741  CD2 LEU B 131      27.878  71.331 107.197  1.00 65.16      6
ATOM   2742  C   LEU B 131      29.693  73.740 108.704  1.00129.43      6
ATOM   2743  O   LEU B 131      30.266  72.653 108.677  1.00128.82      8
ATOM   2744  N   GLU B 132      29.822  74.586 109.729  1.00 97.60      7
ATOM   2745  CA  GLU B 132      30.684  74.235 110.861  1.00 99.00      6
ATOM   2746  CB  GLU B 132      31.951  75.105 110.828  1.00134.43      6
ATOM   2747  CG  GLU B 132      33.013  74.695 111.847  1.00136.66      6
ATOM   2748  CD  GLU B 132      34.383  75.287 111.558  1.00137.83      6
ATOM   2749  OE1 GLU B 132      34.957  74.968 110.494  1.00137.78      8
ATOM   2750  OE2 GLU B 132      34.884  76.069 112.394  1.00138.17      8
ATOM   2751  C   GLU B 132      30.079  74.236 112.284  1.00 99.83      6
ATOM   2752  O   GLU B 132      29.306  73.337 112.638  1.00 99.70      8
ATOM   2753  N   GLU B 133      30.453  75.226 113.099  1.00 95.71      7
ATOM   2754  CA  GLU B 133      29.981  75.354 114.488  1.00 95.88      6
ATOM   2755  CB  GLU B 133      30.861  76.365 115.246  1.00 81.48      6
ATOM   2756  CG  GLU B 133      30.730  76.360 116.784  1.00 82.68      6
ATOM   2757  CD  GLU B 133      31.455  77.541 117.459  1.00 82.94      6
ATOM   2758  OE1 GLU B 133      30.925  78.675 117.431  1.00 83.01      8
ATOM   2759  OE2 GLU B 133      32.561  77.340 118.011  1.00 81.98      8
ATOM   2760  C   GLU B 133      28.519  75.797 114.553  1.00 96.07      6
ATOM   2761  O   GLU B 133      28.080  76.390 115.537  1.00 95.61      8
ATOM   2762  N   GLY B 134      27.776  75.505 113.491  1.00119.75      7
ATOM   2763  CA  GLY B 134      26.371  75.863 113.416  1.00119.61      6
ATOM   2764  C   GLY B 134      25.701  74.923 112.436  1.00120.73      6
ATOM   2765  O   GLY B 134      25.064  75.351 111.471  1.00120.38      8
ATOM   2766  N   GLY B 135      25.865  73.629 112.703  1.00112.87      7
ATOM   2767  CA  GLY B 135      25.314  72.589 111.853  1.00112.15      6
ATOM   2768  C   GLY B 135      23.805  72.511 111.756  1.00112.82      6
ATOM   2769  O   GLY B 135      23.200  71.521 112.175  1.00113.01      8
ATOM   2770  N   LYS B 136      23.203  73.555 111.191  1.00208.87      7
ATOM   2771  CA  LYS B 136      21.757  73.613 111.015  1.00208.87      6
ATOM   2772  CB  LYS B 136      21.260  75.057 111.134  1.00117.57      6
ATOM   2773  CG  LYS B 136      19.750  75.165 111.274  1.00118.63      6
ATOM   2774  CD  LYS B 136      19.347  76.462 111.953  1.00119.24      6
ATOM   2775  CE  LYS B 136      17.892  76.431 112.384  1.00118.87      6
ATOM   2776  NZ  LYS B 136      17.576  77.595 113.252  1.00118.88      7
ATOM   2777  C   LYS B 136      21.410  73.054 109.641  1.00208.87      6
ATOM   2778  O   LYS B 136      21.233  71.847 109.488  1.00208.87      8
ATOM   2779  N   LEU B 137      21.312  73.935 108.650  1.00 75.67      7
ATOM   2780  CA  LEU B 137      21.010  73.521 107.281  1.00 72.95      6
ATOM   2781  CB  LEU B 137      22.300  73.140 106.549  1.00114.50      6
ATOM   2782  CG  LEU B 137      22.145  72.433 105.196  1.00114.45      6
ATOM   2783  CD1 LEU B 137      21.497  73.373 104.185  1.00114.64      6
ATOM   2784  CD2 LEU B 137      23.512  71.969 104.707  1.00114.47      6
ATOM   2785  C   LEU B 137      20.047  72.353 107.172  1.00 72.27      6
ATOM   2786  O   LEU B 137      20.452  71.195 107.264  1.00 71.68      8
ATOM   2787  N   TYR B 138      18.774  72.660 106.979  1.00 99.33      7
ATOM   2788  CA  TYR B 138      17.782  71.615 106.813  1.00 98.44      6
ATOM   2789  CB  TYR B 138      16.705  71.682 107.883  1.00101.24      6
ATOM   2790  CG  TYR B 138      15.626  70.644 107.666  1.00103.67      6
ATOM   2791  CD1 TYR B 138      15.901  69.283 107.810  1.00105.20      6
```

50

```
ATOM   2792  CE1 TYR B 138      14.911  68.321 107.586  1.00105.71      6
ATOM   2793  CD2 TYR B 138      14.331  71.020 107.291  1.00104.41      6
ATOM   2794  CE2 TYR B 138      13.334  70.065 107.063  1.00104.53      6
ATOM   2795  CZ  TYR B 138      13.632  68.720 107.213  1.00105.23      6
ATOM   2796  OH  TYR B 138      12.654  67.781 106.988  1.00105.25      8
ATOM   2797  C   TYR B 138      17.140  71.823 105.461  1.00 97.46      6
ATOM   2798  O   TYR B 138      16.706  72.930 105.141  1.00 98.49      8
ATOM   2799  N   MET B 139      17.071  70.760 104.668  1.00 55.68      7
ATOM   2800  CA  MET B 139      16.488  70.870 103.343  1.00 53.23      6
ATOM   2801  CB  MET B 139      17.575  70.922 102.276  1.00 45.97      6
ATOM   2802  CG  MET B 139      18.504  72.111 102.319  1.00 43.14      6
ATOM   2803  SD  MET B 139      19.493  72.042 100.831  1.00 40.08     16
ATOM   2804  CE  MET B 139      20.758  70.861 101.301  1.00 38.50      6
ATOM   2805  C   MET B 139      15.573  69.719 103.008  1.00 53.66      6
ATOM   2806  O   MET B 139      15.803  68.589 103.416  1.00 53.85      8
ATOM   2807  N   GLU B 140      14.538  70.027 102.242  1.00 57.95      7
ATOM   2808  CA  GLU B 140      13.577  69.038 101.801  1.00 57.39      6
ATOM   2809  CB  GLU B 140      12.251  69.169 102.554  1.00 79.51      6
ATOM   2810  CG  GLU B 140      12.344  69.115 104.062  1.00 80.34      6
ATOM   2811  CD  GLU B 140      10.978  69.016 104.705  1.00 81.16      6
ATOM   2812  OE1 GLU B 140      10.080  69.809 104.340  1.00 81.49      8
ATOM   2813  OE2 GLU B 140      10.800  68.144 105.578  1.00 80.96      8
ATOM   2814  C   GLU B 140      13.351  69.381 100.345  1.00 57.83      6
ATOM   2815  O   GLU B 140      12.263  69.808  99.966  1.00 58.17      8
ATOM   2816  N   VAL B 141      14.389  69.218  99.535  1.00 69.25      7
ATOM   2817  CA  VAL B 141      14.301  69.528  98.111  1.00 68.04      6
ATOM   2818  CB  VAL B 141      15.729  69.592  97.478  1.00 52.16      6
ATOM   2819  CG1 VAL B 141      16.380  68.213  97.492  1.00 52.26      6
ATOM   2820  CG2 VAL B 141      15.657  70.129  96.069  1.00 52.61      6
ATOM   2821  C   VAL B 141      13.435  68.510  97.352  1.00 68.81      6
ATOM   2822  O   VAL B 141      13.279  67.368  97.781  1.00 68.33      8
ATOM   2823  N   ARG B 142      12.849  68.947  96.242  1.00 88.90      7
ATOM   2824  CA  ARG B 142      12.028  68.076  95.412  1.00 89.77      6
ATOM   2825  CB  ARG B 142      10.783  68.817  94.911  1.00 81.59      6
ATOM   2826  CG  ARG B 142      10.014  68.064  93.832  1.00 85.37      6
ATOM   2827  CD  ARG B 142       8.820  68.839  93.298  1.00 88.90      6
ATOM   2828  NE  ARG B 142       8.096  68.065  92.287  1.00 92.35      7
ATOM   2829  CZ  ARG B 142       6.875  68.355  91.835  1.00 93.50      6
ATOM   2830  NH1 ARG B 142       6.214  69.409  92.298  1.00 93.60      7
ATOM   2831  NH2 ARG B 142       6.312  67.588  90.910  1.00 94.27      7
ATOM   2832  C   ARG B 142      12.882  67.669  94.219  1.00 90.42      6
ATOM   2833  O   ARG B 142      13.995  68.165  94.050  1.00 91.24      8
ATOM   2834  N   VAL B 143      12.369  66.752  93.406  1.00 89.15      7
ATOM   2835  CA  VAL B 143      13.062  66.298  92.206  1.00 87.96      6
ATOM   2836  CB  VAL B 143      13.926  65.042  92.491  1.00 37.59      6
ATOM   2837  CG1 VAL B 143      14.830  64.755  91.306  1.00 37.23      6
ATOM   2838  CG2 VAL B 143      14.788  65.269  93.739  1.00 36.71      6
ATOM   2839  C   VAL B 143      11.955  66.020  91.182  1.00 89.07      6
ATOM   2840  O   VAL B 143      10.777  66.012  91.537  1.00 89.12      8
ATOM   2841  N   ASP B 144      12.310  65.795  89.922  1.00 83.46      7
ATOM   2842  CA  ASP B 144      11.277  65.607  88.905  1.00 83.97      6
ATOM   2843  CB  ASP B 144      10.793  66.988  88.454  1.00 69.07      6
ATOM   2844  CG  ASP B 144       9.328  67.011  88.100  1.00 70.86      6
ATOM   2845  OD1 ASP B 144       8.506  67.270  89.006  1.00 71.25      8
ATOM   2846  OD2 ASP B 144       8.998  66.765  86.918  1.00 71.19      8
ATOM   2847  C   ASP B 144      11.687  64.807  87.665  1.00 85.08      6
```

51

```
ATOM   2848  O    ASP B 144      12.858  64.501  87.448  1.00 85.87      8
ATOM   2849  N    ARG B 145      10.694  64.491  86.843  1.00 81.25      7
ATOM   2850  CA   ARG B 145      10.897  63.752  85.606  1.00 81.48      6
ATOM   2851  CB   ARG B 145       9.883  62.598  85.526  1.00116.67      6
ATOM   2852  CG   ARG B 145      10.197  61.495  84.513  1.00121.00      6
ATOM   2853  CD   ARG B 145       9.541  61.742  83.154  1.00124.57      6
ATOM   2854  NE   ARG B 145       9.884  60.704  82.178  1.00127.18      7
ATOM   2855  CZ   ARG B 145       9.427  60.664  80.929  1.00128.14      6
ATOM   2856  NH1  ARG B 145       8.598  61.604  80.485  1.00127.70      7
ATOM   2857  NH2  ARG B 145       9.800  59.682  80.119  1.00128.38      7
ATOM   2858  C    ARG B 145      10.633  64.790  84.517  1.00 80.76      6
ATOM   2859  O    ARG B 145       9.554  65.390  84.488  1.00 81.40      8
ATOM   2860  N    GLY B 146      11.611  65.015  83.636  1.00 59.75      7
ATOM   2861  CA   GLY B 146      11.434  66.010  82.586  1.00 58.12      6
ATOM   2862  C    GLY B 146      11.790  65.634  81.154  1.00 57.76      6
ATOM   2863  O    GLY B 146      12.133  64.484  80.855  1.00 57.87      8
ATOM   2864  N    VAL B 147      11.711  66.630  80.271  1.00 55.35      7
ATOM   2865  CA   VAL B 147      11.991  66.453  78.849  1.00 54.41      6
ATOM   2866  CB   VAL B 147      10.865  67.038  77.992  1.00 80.10      6
ATOM   2867  CG1  VAL B 147       9.570  66.311  78.277  1.00 81.12      6
ATOM   2868  CG2  VAL B 147      10.715  68.523  78.281  1.00 81.16      6
ATOM   2869  C    VAL B 147      13.293  67.083  78.369  1.00 53.79      6
ATOM   2870  O    VAL B 147      14.112  66.411  77.744  1.00 54.45      8
ATOM   2871  N    GLY B 148      13.477  68.373  78.635  1.00 56.94      7
ATOM   2872  CA   GLY B 148      14.690  69.041  78.202  1.00 56.02      6
ATOM   2873  C    GLY B 148      15.307  69.932  79.266  1.00 55.80      6
ATOM   2874  O    GLY B 148      16.032  69.462  80.152  1.00 55.58      8
ATOM   2875  N    TYR B 149      15.024  71.229  79.163  1.00 62.76      7
ATOM   2876  CA   TYR B 149      15.519  72.225  80.109  1.00 61.67      6
ATOM   2877  CB   TYR B 149      16.755  72.942  79.544  1.00 47.58      6
ATOM   2878  CG   TYR B 149      17.298  74.030  80.448  1.00 44.27      6
ATOM   2879  CD1  TYR B 149      18.358  73.778  81.314  1.00 43.41      6
ATOM   2880  CE1  TYR B 149      18.818  74.761  82.198  1.00 42.32      6
ATOM   2881  CD2  TYR B 149      16.710  75.302  80.480  1.00 42.67      6
ATOM   2882  CE2  TYR B 149      17.159  76.292  81.360  1.00 41.68      6
ATOM   2883  CZ   TYR B 149      18.212  76.010  82.219  1.00 42.28      6
ATOM   2884  OH   TYR B 149      18.644  76.950  83.128  1.00 41.87      8
ATOM   2885  C    TYR B 149      14.405  73.240  80.331  1.00 63.16      6
ATOM   2886  O    TYR B 149      13.682  73.576  79.398  1.00 63.11      8
ATOM   2887  N    VAL B 150      14.255  73.716  81.563  1.00 82.04      7
ATOM   2888  CA   VAL B 150      13.236  74.716  81.863  1.00 83.70      6
ATOM   2889  CB   VAL B 150      11.893  74.089  82.226  1.00 46.67      6
ATOM   2890  CG1  VAL B 150      10.820  74.625  81.293  1.00 46.16      6
ATOM   2891  CG2  VAL B 150      11.979  72.589  82.146  1.00 46.53      6
ATOM   2892  C    VAL B 150      13.656  75.634  82.997  1.00 86.08      6
ATOM   2893  O    VAL B 150      14.025  75.186  84.079  1.00 85.92      8
ATOM   2894  N    PRO B 151      13.597  76.946  82.756  1.00 71.11      7
ATOM   2895  CD   PRO B 151      13.161  77.521  81.472  1.00 58.08      6
ATOM   2896  CA   PRO B 151      13.962  77.999  83.708  1.00 73.95      6
ATOM   2897  CB   PRO B 151      13.869  79.267  82.854  1.00 60.58      6
ATOM   2898  CG   PRO B 151      12.799  78.926  81.856  1.00 59.02      6
ATOM   2899  C    PRO B 151      13.101  78.078  84.972  1.00 76.59      6
ATOM   2900  O    PRO B 151      12.677  77.055  85.511  1.00 76.74      8
ATOM   2901  N    ALA B 152      12.883  79.308  85.444  1.00 39.27      7
ATOM   2902  CA   ALA B 152      12.057  79.598  86.616  1.00 42.47      6
ATOM   2903  CB   ALA B 152      12.676  80.736  87.413  1.00107.83      6
```

52

ATOM	2904	C	ALA	B	152	10.635	79.979	86.157	1.00	44.62	6
ATOM	2905	O	ALA	B	152	10.154	81.093	86.386	1.00	44.85	8
ATOM	2906	N	GLU	B	153	9.974	79.035	85.497	1.00	173.69	7
ATOM	2907	CA	GLU	B	153	8.624	79.258	85.006	1.00	177.64	6
ATOM	2908	CB	GLU	B	153	8.640	79.422	83.487	1.00	172.29	6
ATOM	2909	CG	GLU	B	153	7.300	79.820	82.895	1.00	175.51	6
ATOM	2910	CD	GLU	B	153	6.805	81.159	83.414	1.00	177.58	6
ATOM	2911	OE1	GLU	B	153	7.539	82.160	83.272	1.00	179.18	8
ATOM	2912	OE2	GLU	B	153	5.681	81.214	83.959	1.00	179.05	8
ATOM	2913	C	GLU	B	153	7.711	78.100	85.399	1.00	179.79	6
ATOM	2914	O	GLU	B	153	6.486	78.190	85.286	1.00	180.54	8
ATOM	2915	N	ARG	B	154	8.313	77.010	85.863	1.00	116.41	7
ATOM	2916	CA	ARG	B	154	7.545	75.852	86.283	1.00	117.36	6
ATOM	2917	CB	ARG	B	154	8.356	74.572	86.077	1.00	160.53	6
ATOM	2918	CG	ARG	B	154	8.513	74.185	84.614	1.00	164.64	6
ATOM	2919	CD	ARG	B	154	7.156	73.958	83.940	1.00	168.10	6
ATOM	2920	NE	ARG	B	154	7.294	73.684	82.509	1.00	170.66	7
ATOM	2921	CZ	ARG	B	154	6.284	73.387	81.698	1.00	171.03	6
ATOM	2922	NH1	ARG	B	154	5.046	73.321	82.168	1.00	171.38	7
ATOM	2923	NH2	ARG	B	154	6.513	73.154	80.412	1.00	171.09	7
ATOM	2924	C	ARG	B	154	7.129	75.992	87.738	1.00	116.81	6
ATOM	2925	O	ARG	B	154	6.332	75.204	88.240	1.00	117.13	8
ATOM	2926	N	HIS	B	155	7.678	76.997	88.413	1.00	55.66	7
ATOM	2927	CA	HIS	B	155	7.348	77.274	89.818	1.00	55.25	6
ATOM	2928	CB	HIS	B	155	5.966	77.938	89.894	1.00	208.87	6
ATOM	2929	CG	HIS	B	155	5.783	79.078	88.934	1.00	208.87	6
ATOM	2930	CD2	HIS	B	155	6.633	79.645	88.044	1.00	208.87	6
ATOM	2931	ND1	HIS	B	155	4.588	79.753	88.801	1.00	208.87	7
ATOM	2932	CE1	HIS	B	155	4.708	80.682	87.870	1.00	208.87	6
ATOM	2933	NE2	HIS	B	155	5.939	80.638	87.394	1.00	208.87	7
ATOM	2934	C	HIS	B	155	7.390	76.045	90.758	1.00	53.61	6
ATOM	2935	O	HIS	B	155	6.705	75.033	90.546	1.00	52.58	8
ATOM	2936	N	GLY	B	156	8.191	76.165	91.815	1.00	77.00	7
ATOM	2937	CA	GLY	B	156	8.347	75.084	92.773	1.00	75.17	6
ATOM	2938	C	GLY	B	156	7.224	74.924	93.780	1.00	74.46	6
ATOM	2939	O	GLY	B	156	7.414	75.133	94.983	1.00	73.94	8
ATOM	2940	N	ILE	B	157	6.056	74.540	93.273	1.00	110.69	7
ATOM	2941	CA	ILE	B	157	4.861	74.317	94.081	1.00	109.94	6
ATOM	2942	CB	ILE	B	157	3.890	73.375	93.328	1.00	96.64	6
ATOM	2943	CG2	ILE	B	157	2.576	73.271	94.066	1.00	97.13	6
ATOM	2944	CG1	ILE	B	157	3.673	73.884	91.899	1.00	96.85	6
ATOM	2945	CD1	ILE	B	157	3.199	75.326	91.800	1.00	97.40	6
ATOM	2946	C	ILE	B	157	5.211	73.711	95.447	1.00	109.72	6
ATOM	2947	O	ILE	B	157	5.476	74.440	96.403	1.00	109.75	8
ATOM	2948	N	LYS	B	158	5.204	72.381	95.523	1.00	105.17	7
ATOM	2949	CA	LYS	B	158	5.531	71.639	96.742	1.00	104.52	6
ATOM	2950	CB	LYS	B	158	7.013	71.256	96.743	1.00	126.04	6
ATOM	2951	CG	LYS	B	158	7.335	70.011	95.942	1.00	127.28	6
ATOM	2952	CD	LYS	B	158	6.666	68.780	96.535	1.00	127.58	6
ATOM	2953	CE	LYS	B	158	7.045	67.522	95.767	1.00	128.34	6
ATOM	2954	NZ	LYS	B	158	6.394	66.299	96.313	1.00	128.78	7
ATOM	2955	C	LYS	B	158	5.211	72.330	98.060	1.00	104.50	6
ATOM	2956	O	LYS	B	158	4.048	72.604	98.361	1.00	104.97	8
ATOM	2957	N	ASP	B	159	6.265	72.587	98.839	1.00	70.07	7
ATOM	2958	CA	ASP	B	159	6.186	73.231	100.155	1.00	68.58	6
ATOM	2959	CB	ASP	B	159	7.601	73.320	100.749	1.00	75.47	6

```
ATOM   2960  CG   ASP B 159      7.617  73.852 102.174  1.00  76.09      6
ATOM   2961  OD1  ASP B 159      6.953  73.253 103.054  1.00  76.19      8
ATOM   2962  OD2  ASP B 159      8.307  74.871 102.412  1.00  76.49      8
ATOM   2963  C    ASP B 159      5.546  74.624 100.102  1.00  68.26      6
ATOM   2964  O    ASP B 159      6.104  75.593 100.612  1.00  67.90      8
ATOM   2965  N    ARG B 160      4.365  74.697  99.492  1.00  91.05      7
ATOM   2966  CA   ARG B 160      3.605  75.932  99.333  1.00  91.10      6
ATOM   2967  CB   ARG B 160      2.606  76.097 100.489  1.00196.98      6
ATOM   2968  CG   ARG B 160      1.425  77.020 100.169  1.00199.78      6
ATOM   2969  CD   ARG B 160      0.318  76.898 101.215  1.00201.81      6
ATOM   2970  NE   ARG B 160     -0.931  77.522 100.779  1.00202.57      7
ATOM   2971  CZ   ARG B 160     -2.067  77.484 101.471  1.00202.64      6
ATOM   2972  NH1  ARG B 160     -2.119  76.853 102.637  1.00203.08      7
ATOM   2973  NH2  ARG B 160     -3.156  78.074 100.997  1.00202.29      7
ATOM   2974  C    ARG B 160      4.508  77.156  99.235  1.00  90.17      6
ATOM   2975  O    ARG B 160      4.862  77.576  98.131  1.00  90.77      8
ATOM   2976  N    ILE B 161      4.881  77.714 100.388  1.00111.41      7
ATOM   2977  CA   ILE B 161      5.742  78.897 100.453  1.00108.90      6
ATOM   2978  CB   ILE B 161      5.186  79.910 101.467  1.00155.30      6
ATOM   2979  CG2  ILE B 161      5.920  81.240 101.329  1.00155.26      6
ATOM   2980  CG1  ILE B 161      3.689  80.101 101.221  1.00156.01      6
ATOM   2981  CD1  ILE B 161      2.979  80.897 102.286  1.00157.04      6
ATOM   2982  C    ILE B 161      7.184  78.537 100.831  1.00106.94      6
ATOM   2983  O    ILE B 161      7.423  77.547 101.521  1.00106.37      8
ATOM   2984  N    ASN B 162      8.131  79.360 100.381  1.00157.69      7
ATOM   2985  CA   ASN B 162      9.562  79.144 100.613  1.00155.50      6
ATOM   2986  CB   ASN B 162      9.848  78.754 102.065  1.00120.56      6
ATOM   2987  CG   ASN B 162      9.259  79.725 103.054  1.00120.85      6
ATOM   2988  OD1  ASN B 162      9.299  80.936 102.847  1.00120.63      8
ATOM   2989  ND2  ASN B 162      8.715  79.201 104.148  1.00121.34      7
ATOM   2990  C    ASN B 162      9.993  78.014  99.692  1.00154.09      6
ATOM   2991  O    ASN B 162     10.002  76.847 100.086  1.00154.31      8
ATOM   2992  N    ALA B 163     10.354  78.364  98.463  1.00  77.76      7
ATOM   2993  CA   ALA B 163     10.735  77.354  97.496  1.00  74.56      6
ATOM   2994  CB   ALA B 163      9.571  77.121  96.541  1.00  55.98      6
ATOM   2995  C    ALA B 163     12.007  77.639  96.703  1.00  72.69      6
ATOM   2996  O    ALA B 163     12.746  76.715  96.355  1.00  73.43      8
ATOM   2997  N    ILE B 164     12.274  78.904  96.410  1.00  59.09      7
ATOM   2998  CA   ILE B 164     13.459  79.242  95.626  1.00  57.08      6
ATOM   2999  CB   ILE B 164     14.715  79.360  96.542  1.00  43.29      6
ATOM   3000  CG2  ILE B 164     14.450  80.364  97.641  1.00  43.45      6
ATOM   3001  CG1  ILE B 164     15.046  78.026  97.206  1.00  42.16      6
ATOM   3002  CD1  ILE B 164     16.244  78.112  98.133  1.00  41.64      6
ATOM   3003  C    ILE B 164     13.681  78.188  94.520  1.00  55.27      6
ATOM   3004  O    ILE B 164     14.807  77.762  94.253  1.00  55.18      8
ATOM   3005  N    PRO B 165     12.590  77.792  93.835  1.00  54.05      7
ATOM   3006  CD   PRO B 165     11.340  78.566  93.734  1.00  45.24      6
ATOM   3007  CA   PRO B 165     12.634  76.794  92.768  1.00  53.19      6
ATOM   3008  CB   PRO B 165     11.277  76.955  92.083  1.00  44.74      6
ATOM   3009  CG   PRO B 165     10.973  78.380  92.281  1.00  44.95      6
ATOM   3010  C    PRO B 165     13.781  76.948  91.798  1.00  51.81      6
ATOM   3011  O    PRO B 165     13.890  77.945  91.093  1.00  51.05      8
ATOM   3012  N    VAL B 166     14.638  75.941  91.773  1.00  53.76      7
ATOM   3013  CA   VAL B 166     15.772  75.942  90.877  1.00  52.63      6
ATOM   3014  CB   VAL B 166     16.795  74.880  91.303  1.00  37.36      6
ATOM   3015  CG1  VAL B 166     17.762  75.491  92.294  1.00  37.27      6
```

54

```
ATOM   3016   CG2  VAL B 166      16.088  73.698  91.955  1.00 37.18      6
ATOM   3017   C    VAL B 166      15.295  75.691  89.452  1.00 53.14      6
ATOM   3018   O    VAL B 166      14.093  75.552  89.214  1.00 52.50      8
ATOM   3019   N    ASP B 167      16.228  75.648  88.507  1.00 51.01      7
ATOM   3020   CA   ASP B 167      15.860  75.429  87.116  1.00 51.58      6
ATOM   3021   CB   ASP B 167      16.843  76.149  86.193  1.00 56.28      6
ATOM   3022   CG   ASP B 167      16.933  77.631  86.490  1.00 56.37      6
ATOM   3023   OD1  ASP B 167      15.857  78.266  86.604  1.00 56.07      8
ATOM   3024   OD2  ASP B 167      18.067  78.157  86.608  1.00 55.57      8
ATOM   3025   C    ASP B 167      15.785  73.942  86.771  1.00 52.93      6
ATOM   3026   O    ASP B 167      16.523  73.117  87.316  1.00 54.06      8
ATOM   3027   N    ALA B 168      14.880  73.612  85.860  1.00 70.74      7
ATOM   3028   CA   ALA B 168      14.660  72.237  85.446  1.00 72.04      6
ATOM   3029   CB   ALA B 168      13.238  72.089  84.963  1.00 93.07      6
ATOM   3030   C    ALA B 168      15.621  71.764  84.368  1.00 73.25      6
ATOM   3031   O    ALA B 168      15.318  71.848  83.176  1.00 74.88      8
ATOM   3032   N    ILE B 169      16.774  71.254  84.784  1.00 40.64      7
ATOM   3033   CA   ILE B 169      17.757  70.769  83.832  1.00 41.50      6
ATOM   3034   CB   ILE B 169      19.213  71.068  84.313  1.00 98.30      6
ATOM   3035   CG2  ILE B 169      19.539  72.525  84.130  1.00 97.49      6
ATOM   3036   CG1  ILE B 169      19.381  70.705  85.793  1.00100.66      6
ATOM   3037   CD1  ILE B 169      19.738  69.249  86.070  1.00102.42      6
ATOM   3038   C    ILE B 169      17.619  69.273  83.586  1.00 41.74      6
ATOM   3039   O    ILE B 169      18.592  68.532  83.729  1.00 42.04      8
ATOM   3040   N    PHE B 170      16.432  68.802  83.211  1.00 42.29      7
ATOM   3041   CA   PHE B 170      16.317  67.361  82.977  1.00 43.20      6
ATOM   3042   CB   PHE B 170      15.013  66.777  83.538  1.00 61.40      6
ATOM   3043   CG   PHE B 170      13.954  67.786  83.836  1.00 63.03      6
ATOM   3044   CD1  PHE B 170      13.399  68.556  82.827  1.00 63.24      6
ATOM   3045   CD2  PHE B 170      13.438  67.889  85.124  1.00 63.04      6
ATOM   3046   CE1  PHE B 170      12.338  69.403  83.094  1.00 62.61      6
ATOM   3047   CE2  PHE B 170      12.381  68.732  85.398  1.00 62.50      6
ATOM   3048   CZ   PHE B 170      11.827  69.489  84.379  1.00 62.13      6
ATOM   3049   C    PHE B 170      16.502  66.878  81.545  1.00 42.83      6
ATOM   3050   O    PHE B 170      15.619  67.031  80.700  1.00 42.08      8
ATOM   3051   N    SER B 171      17.672  66.276  81.318  1.00 58.08      7
ATOM   3052   CA   SER B 171      18.105  65.721  80.035  1.00 57.84      6
ATOM   3053   CB   SER B 171      18.167  66.810  78.959  1.00 64.81      6
ATOM   3054   OG   SER B 171      16.915  67.437  78.764  1.00 66.33      8
ATOM   3055   C    SER B 171      19.519  65.173  80.243  1.00 58.17      6
ATOM   3056   O    SER B 171      20.482  65.929  80.186  1.00 58.94      8
ATOM   3057   N    PRO B 172      19.663  63.858  80.480  1.00 62.96      7
ATOM   3058   CD   PRO B 172      18.555  62.888  80.478  1.00125.39      6
ATOM   3059   CA   PRO B 172      20.948  63.178  80.702  1.00 62.05      6
ATOM   3060   CB   PRO B 172      20.586  61.714  80.509  1.00124.61      6
ATOM   3061   CG   PRO B 172      19.206  61.658  81.068  1.00125.56      6
ATOM   3062   C    PRO B 172      22.105  63.621  79.791  1.00 62.13      6
ATOM   3063   O    PRO B 172      23.274  63.464  80.141  1.00 62.81      8
ATOM   3064   N    VAL B 173      21.774  64.151  78.617  1.00 50.25      7
ATOM   3065   CA   VAL B 173      22.775  64.643  77.679  1.00 49.25      6
ATOM   3066   CB   VAL B 173      22.246  64.633  76.232  1.00 47.86      6
ATOM   3067   CG1  VAL B 173      21.865  63.242  75.819  1.00 46.05      6
ATOM   3068   CG2  VAL B 173      21.033  65.531  76.123  1.00 48.20      6
ATOM   3069   C    VAL B 173      22.992  66.093  78.087  1.00 50.28      6
ATOM   3070   O    VAL B 173      22.022  66.787  78.407  1.00 50.57      8
ATOM   3071   N    ARG B 174      24.238  66.565  78.080  1.00 46.53      7
```

55

ATOM	3072	CA	ARG	B	174	24.500	67.957	78.459	1.00	45.95	6
ATOM	3073	CB	ARG	B	174	25.016	68.000	79.903	1.00	76.44	6
ATOM	3074	CG	ARG	B	174	23.959	67.598	80.932	1.00	76.70	6
ATOM	3075	CD	ARG	B	174	24.453	67.729	82.365	1.00	77.00	6
ATOM	3076	NE	ARG	B	174	23.374	67.503	83.323	1.00	77.86	7
ATOM	3077	CZ	ARG	B	174	23.543	67.416	84.639	1.00	78.64	6
ATOM	3078	NH1	ARG	B	174	24.754	67.535	85.169	1.00	79.52	7
ATOM	3079	NH2	ARG	B	174	22.497	67.208	85.429	1.00	78.53	7
ATOM	3080	C	ARG	B	174	25.447	68.725	77.531	1.00	45.02	6
ATOM	3081	O	ARG	B	174	26.133	69.643	77.966	1.00	45.18	8
ATOM	3082	N	ARG	B	175	25.449	68.359	76.251	1.00	30.81	7
ATOM	3083	CA	ARG	B	175	26.307	68.974	75.232	1.00	30.24	6
ATOM	3084	CB	ARG	B	175	27.705	69.252	75.796	1.00	56.73	6
ATOM	3085	CG	ARG	B	175	28.609	69.963	74.814	1.00	58.11	6
ATOM	3086	CD	ARG	B	175	30.066	69.866	75.184	1.00	58.93	6
ATOM	3087	NE	ARG	B	175	30.879	70.341	74.074	1.00	60.67	7
ATOM	3088	CZ	ARG	B	175	32.160	70.044	73.914	1.00	61.35	6
ATOM	3089	NH1	ARG	B	175	32.771	69.274	74.800	1.00	62.34	7
ATOM	3090	NH2	ARG	B	175	32.821	70.495	72.859	1.00	61.62	7
ATOM	3091	C	ARG	B	175	26.434	68.025	74.030	1.00	29.61	6
ATOM	3092	O	ARG	B	175	26.804	66.867	74.174	1.00	28.19	8
ATOM	3093	N	VAL	B	176	26.163	68.521	72.837	1.00	43.00	7
ATOM	3094	CA	VAL	B	176	26.209	67.663	71.674	1.00	42.87	6
ATOM	3095	CB	VAL	B	176	24.779	67.226	71.310	1.00	59.69	6
ATOM	3096	CG1	VAL	B	176	24.808	66.209	70.197	1.00	61.48	6
ATOM	3097	CG2	VAL	B	176	24.080	66.679	72.535	1.00	59.65	6
ATOM	3098	C	VAL	B	176	26.838	68.321	70.450	1.00	43.44	6
ATOM	3099	O	VAL	B	176	26.225	69.206	69.832	1.00	43.32	8
ATOM	3100	N	ALA	B	177	28.047	67.883	70.093	1.00	43.93	7
ATOM	3101	CA	ALA	B	177	28.750	68.414	68.917	1.00	44.13	6
ATOM	3102	CB	ALA	B	177	30.096	69.001	69.326	1.00	84.37	6
ATOM	3103	C	ALA	B	177	28.946	67.333	67.846	1.00	43.58	6
ATOM	3104	O	ALA	B	177	28.846	66.139	68.127	1.00	43.19	8
ATOM	3105	N	PHE	B	178	29.236	67.754	66.618	1.00	16.23	7
ATOM	3106	CA	PHE	B	178	29.413	66.806	65.523	1.00	17.34	6
ATOM	3107	CB	PHE	B	178	28.079	66.114	65.248	1.00	28.38	6
ATOM	3108	CG	PHE	B	178	27.105	66.970	64.492	1.00	26.31	6
ATOM	3109	CD1	PHE	B	178	27.007	66.878	63.110	1.00	25.18	6
ATOM	3110	CD2	PHE	B	178	26.323	67.910	65.151	1.00	24.98	6
ATOM	3111	CE1	PHE	B	178	26.145	67.713	62.393	1.00	23.37	6
ATOM	3112	CE2	PHE	B	178	25.458	68.754	64.434	1.00	23.56	6
ATOM	3113	CZ	PHE	B	178	25.370	68.653	63.057	1.00	22.91	6
ATOM	3114	C	PHE	B	178	29.912	67.458	64.227	1.00	18.91	6
ATOM	3115	O	PHE	B	178	29.345	68.451	63.769	1.00	17.56	8
ATOM	3116	N	GLN	B	179	30.963	66.908	63.625	1.00	62.17	7
ATOM	3117	CA	GLN	B	179	31.449	67.473	62.369	1.00	65.93	6
ATOM	3118	CB	GLN	B	179	32.773	68.234	62.560	1.00	80.10	6
ATOM	3119	CG	GLN	B	179	33.982	67.411	62.962	1.00	81.43	6
ATOM	3120	CD	GLN	B	179	35.287	68.139	62.658	1.00	82.38	6
ATOM	3121	OE1	GLN	B	179	35.333	69.371	62.650	1.00	82.70	8
ATOM	3122	NE2	GLN	B	179	36.355	67.379	62.417	1.00	81.97	7
ATOM	3123	C	GLN	B	179	31.606	66.428	61.282	1.00	66.88	6
ATOM	3124	O	GLN	B	179	32.281	65.425	61.468	1.00	67.65	8
ATOM	3125	N	VAL	B	180	30.979	66.674	60.140	1.00	30.90	7
ATOM	3126	CA	VAL	B	180	31.039	65.738	59.032	1.00	33.56	6
ATOM	3127	CB	VAL	B	180	29.649	65.640	58.339	1.00	68.73	6

56

```
ATOM   3128  CG1 VAL B 180      29.190  67.013  57.885  1.00 69.38      6
ATOM   3129  CG2 VAL B 180      29.706  64.663  57.172  1.00 69.19      6
ATOM   3130  C   VAL B 180      32.127  66.030  57.990  1.00 35.36      6
ATOM   3131  O   VAL B 180      31.912  66.779  57.033  1.00 35.29      8
ATOM   3132  N   GLU B 181      33.296  65.428  58.168  1.00 62.66      7
ATOM   3133  CA  GLU B 181      34.383  65.627  57.219  1.00 65.99      6
ATOM   3134  CB  GLU B 181      35.724  65.329  57.896  1.00120.88      6
ATOM   3135  CG  GLU B 181      36.953  65.566  57.025  1.00123.47      6
ATOM   3136  CD  GLU B 181      38.245  65.511  57.823  1.00124.36      6
ATOM   3137  OE1 GLU B 181      38.399  64.565  58.628  1.00123.76      8
ATOM   3138  OE2 GLU B 181      39.108  66.402  57.644  1.00125.31      8
ATOM   3139  C   GLU B 181      34.175  64.714  56.004  1.00 67.27      6
ATOM   3140  O   GLU B 181      33.316  63.842  56.019  1.00 68.13      8
ATOM   3141  N   ASP B 182      34.943  64.921  54.945  1.00 43.73      7
ATOM   3142  CA  ASP B 182      34.808  64.091  53.763  1.00 45.68      6
ATOM   3143  CB  ASP B 182      35.001  64.914  52.486  1.00 97.05      6
ATOM   3144  CG  ASP B 182      34.684  66.383  52.677  1.00 98.74      6
ATOM   3145  OD1 ASP B 182      33.808  66.704  53.506  1.00100.74      8
ATOM   3146  OD2 ASP B 182      35.302  67.218  51.983  1.00 97.37      8
ATOM   3147  C   ASP B 182      35.875  63.008  53.816  1.00 47.05      6
ATOM   3148  O   ASP B 182      36.967  63.237  54.333  1.00 47.61      8
ATOM   3149  N   THR B 183      35.548  61.832  53.285  1.00 51.94      7
ATOM   3150  CA  THR B 183      36.461  60.686  53.225  1.00 53.53      6
ATOM   3151  CB  THR B 183      36.225  59.684  54.366  1.00 71.65      6
ATOM   3152  OG1 THR B 183      34.860  59.248  54.340  1.00 71.78      8
ATOM   3153  CG2 THR B 183      36.547  60.318  55.704  1.00 72.82      6
ATOM   3154  C   THR B 183      36.140  59.993  51.922  1.00 54.41      6
ATOM   3155  O   THR B 183      34.991  60.012  51.479  1.00 54.35      8
ATOM   3156  N   ALA B 184      37.137  59.360  51.319  1.00129.81      7
ATOM   3157  CA  ALA B 184      36.918  58.709  50.042  1.00131.82      6
ATOM   3158  CB  ALA B 184      37.776  59.367  48.990  1.00 58.25      6
ATOM   3159  C   ALA B 184      37.140  57.215  49.991  1.00133.33      6
ATOM   3160  O   ALA B 184      37.857  56.745  49.109  1.00134.76      8
ATOM   3161  N   LEU B 185      36.553  56.454  50.911  1.00148.14      7
ATOM   3162  CA  LEU B 185      36.730  55.008  50.835  1.00148.94      6
ATOM   3163  CB  LEU B 185      35.855  54.272  51.850  1.00 94.82      6
ATOM   3164  CG  LEU B 185      36.328  54.260  53.306  1.00 94.69      6
ATOM   3165  CD1 LEU B 185      35.483  53.256  54.075  1.00 94.46      6
ATOM   3166  CD2 LEU B 185      37.801  53.882  53.387  1.00 93.85      6
ATOM   3167  C   LEU B 185      36.304  54.652  49.419  1.00149.86      6
ATOM   3168  O   LEU B 185      37.106  54.147  48.629  1.00150.21      8
ATOM   3169  N   GLY B 186      35.041  54.921  49.093  1.00 67.38      7
ATOM   3170  CA  GLY B 186      34.596  54.663  47.741  1.00 68.06      6
ATOM   3171  C   GLY B 186      35.455  55.625  46.944  1.00 68.15      6
ATOM   3172  O   GLY B 186      35.579  56.778  47.356  1.00 68.60      8
ATOM   3173  N   GLN B 187      36.064  55.171  45.847  1.00110.85      7
ATOM   3174  CA  GLN B 187      36.927  56.015  45.008  1.00110.89      6
ATOM   3175  CB  GLN B 187      36.852  55.563  43.549  1.00 71.69      6
ATOM   3176  CG  GLN B 187      37.833  56.277  42.633  1.00 70.62      6
ATOM   3177  CD  GLN B 187      37.348  57.617  42.111  1.00 70.79      6
ATOM   3178  OE1 GLN B 187      36.859  57.716  40.986  1.00 71.50      8
ATOM   3179  NE2 GLN B 187      37.485  58.654  42.924  1.00 70.20      7
ATOM   3180  C   GLN B 187      36.619  57.510  45.069  1.00110.45      6
ATOM   3181  O   GLN B 187      37.488  58.312  45.414  1.00110.76      8
ATOM   3182  N   ARG B 188      35.394  57.877  44.694  1.00 83.21      7
ATOM   3183  CA  ARG B 188      34.936  59.265  44.715  1.00 82.05      6
```

ATOM	3184	CB	ARG	B	188	33.412	59.298	44.738	1.00138.62	6
ATOM	3185	CG	ARG	B	188	32.820	60.676	44.639	1.00139.12	6
ATOM	3186	CD	ARG	B	188	31.322	60.625	44.855	1.00139.80	6
ATOM	3187	NE	ARG	B	188	30.722	61.944	44.704	1.00141.03	7
ATOM	3188	CZ	ARG	B	188	29.450	62.221	44.971	1.00141.96	6
ATOM	3189	NH1	ARG	B	188	28.639	61.266	45.409	1.00143.04	7
ATOM	3190	NH2	ARG	B	188	28.989	63.454	44.800	1.00141.62	7
ATOM	3191	C	ARG	B	188	35.491	59.892	45.985	1.00 80.56	6
ATOM	3192	O	ARG	B	188	35.553	59.236	47.024	1.00 81.23	8
ATOM	3193	N	THR	B	189	35.878	61.161	45.915	1.00 77.04	7
ATOM	3194	CA	THR	B	189	36.477	61.828	47.067	1.00 74.63	6
ATOM	3195	CB	THR	B	189	37.717	62.551	46.638	1.00 59.96	6
ATOM	3196	OG1	THR	B	189	37.354	63.515	45.645	1.00 60.93	8
ATOM	3197	CG2	THR	B	189	38.713	61.575	46.050	1.00 59.93	6
ATOM	3198	C	THR	B	189	35.638	62.826	47.854	1.00 71.92	6
ATOM	3199	O	THR	B	189	36.171	63.526	48.716	1.00 72.50	8
ATOM	3200	N	ASP	B	190	34.341	62.905	47.576	1.00 63.78	7
ATOM	3201	CA	ASP	B	190	33.491	63.841	48.297	1.00 61.55	6
ATOM	3202	CB	ASP	B	190	32.921	64.882	47.330	1.00 77.28	6
ATOM	3203	CG	ASP	B	190	32.553	64.292	45.994	1.00 78.99	6
ATOM	3204	OD1	ASP	B	190	33.453	63.761	45.309	1.00 79.32	8
ATOM	3205	OD2	ASP	B	190	31.365	64.365	45.625	1.00 80.25	8
ATOM	3206	C	ASP	B	190	32.366	63.199	49.099	1.00 58.55	6
ATOM	3207	O	ASP	B	190	31.262	63.725	49.159	1.00 59.65	8
ATOM	3208	N	LEU	B	191	32.649	62.076	49.741	1.00 74.59	7
ATOM	3209	CA	LEU	B	191	31.628	61.417	50.530	1.00 71.86	6
ATOM	3210	CB	LEU	B	191	31.870	59.915	50.490	1.00 39.25	6
ATOM	3211	CG	LEU	B	191	31.700	59.458	49.027	1.00 38.40	6
ATOM	3212	CD1	LEU	B	191	32.178	58.033	48.832	1.00 37.17	6
ATOM	3213	CD2	LEU	B	191	30.238	59.588	48.622	1.00 37.38	6
ATOM	3214	C	LEU	B	191	31.610	61.981	51.953	1.00 70.45	6
ATOM	3215	O	LEU	B	191	32.562	62.647	52.357	1.00 72.17	8
ATOM	3216	N	ASP	B	192	30.523	61.740	52.696	1.00 39.62	7
ATOM	3217	CA	ASP	B	192	30.354	62.265	54.068	1.00 36.40	6
ATOM	3218	CB	ASP	B	192	28.898	62.701	54.282	1.00 78.82	6
ATOM	3219	CG	ASP	B	192	28.578	64.025	53.601	1.00 79.38	6
ATOM	3220	OD1	ASP	B	192	29.164	64.299	52.532	1.00 79.92	8
ATOM	3221	OD2	ASP	B	192	27.735	64.783	54.131	1.00 79.32	8
ATOM	3222	C	ASP	B	192	30.773	61.330	55.199	1.00 32.27	6
ATOM	3223	O	ASP	B	192	30.658	60.115	55.081	1.00 31.34	8
ATOM	3224	N	LYS	B	193	31.248	61.917	56.294	1.00 21.17	7
ATOM	3225	CA	LYS	B	193	31.718	61.163	57.450	1.00 18.63	6
ATOM	3226	CB	LYS	B	193	33.241	61.060	57.446	1.00 54.65	6
ATOM	3227	CG	LYS	B	193	33.820	60.353	58.652	1.00 55.49	6
ATOM	3228	CD	LYS	B	193	34.597	59.149	58.199	1.00 58.46	6
ATOM	3229	CE	LYS	B	193	35.959	59.038	58.888	1.00 60.61	6
ATOM	3230	NZ	LYS	B	193	36.881	58.045	58.209	1.00 62.12	7
ATOM	3231	C	LYS	B	193	31.264	61.796	58.757	1.00 16.86	6
ATOM	3232	O	LYS	B	193	32.071	62.340	59.534	1.00 15.25	8
ATOM	3233	N	LEU	B	194	29.960	61.671	58.985	1.00 56.76	7
ATOM	3234	CA	LEU	B	194	29.248	62.189	60.146	1.00 54.94	6
ATOM	3235	CB	LEU	B	194	28.004	61.332	60.376	1.00 26.43	6
ATOM	3236	CG	LEU	B	194	26.860	61.933	61.191	1.00 23.96	6
ATOM	3237	CD1	LEU	B	194	26.960	61.449	62.612	1.00 23.82	6
ATOM	3238	CD2	LEU	B	194	26.879	63.450	61.118	1.00 22.05	6
ATOM	3239	C	LEU	B	194	29.995	62.384	61.468	1.00 54.76	6

```
ATOM   3240  O    LEU B 194      30.366  63.506  61.799  1.00  55.92      8
ATOM   3241  N    THR B 195      30.211  61.316  62.227  1.00  24.80      7
ATOM   3242  CA   THR B 195      30.885  61.427  63.529  1.00  24.82      6
ATOM   3243  CB   THR B 195      32.305  62.008  63.430  1.00  13.87      6
ATOM   3244  OG1  THR B 195      33.111  61.165  62.607  1.00  13.87      8
ATOM   3245  CG2  THR B 195      32.929  62.113  64.826  1.00  13.87      6
ATOM   3246  C    THR B 195      30.127  62.323  64.513  1.00  27.11      6
ATOM   3247  O    THR B 195      29.933  63.510  64.266  1.00  27.79      8
ATOM   3248  N    LEU B 196      29.710  61.748  65.634  1.00  83.35      7
ATOM   3249  CA   LEU B 196      28.987  62.491  66.655  1.00  85.23      6
ATOM   3250  CB   LEU B 196      27.600  61.889  66.865  1.00  37.74      6
ATOM   3251  CG   LEU B 196      26.427  62.775  66.443  1.00  37.19      6
ATOM   3252  CD1  LEU B 196      26.607  63.276  65.031  1.00  35.58      6
ATOM   3253  CD2  LEU B 196      25.156  61.986  66.537  1.00  38.11      6
ATOM   3254  C    LEU B 196      29.779  62.409  67.941  1.00  88.34      6
ATOM   3255  O    LEU B 196      30.801  61.729  67.998  1.00  90.29      8
ATOM   3256  N    ARG B 197      29.316  63.111  68.968  1.00  85.67      7
ATOM   3257  CA   ARG B 197      29.977  63.095  70.267  1.00  87.64      6
ATOM   3258  CB   ARG B 197      31.277  63.895  70.208  1.00  65.93      6
ATOM   3259  CG   ARG B 197      31.185  65.241  69.531  1.00  68.55      6
ATOM   3260  CD   ARG B 197      32.584  65.793  69.339  1.00  73.98      6
ATOM   3261  NE   ARG B 197      32.618  67.245  69.442  1.00  77.56      7
ATOM   3262  CZ   ARG B 197      33.720  67.948  69.682  1.00  79.42      6
ATOM   3263  NH1  ARG B 197      34.881  67.328  69.841  1.00  81.24      7
ATOM   3264  NH2  ARG B 197      33.659  69.269  69.778  1.00  79.66      7
ATOM   3265  C    ARG B 197      29.020  63.642  71.314  1.00  89.08      6
ATOM   3266  O    ARG B 197      28.980  64.840  71.597  1.00  90.63      8
ATOM   3267  N    ILE B 198      28.251  62.718  71.880  1.00  28.99      7
ATOM   3268  CA   ILE B 198      27.217  63.003  72.861  1.00  29.28      6
ATOM   3269  CB   ILE B 198      26.045  61.980  72.665  1.00  51.66      6
ATOM   3270  CG2  ILE B 198      25.714  61.278  73.933  1.00  52.32      6
ATOM   3271  CG1  ILE B 198      24.805  62.683  72.114  1.00  52.64      6
ATOM   3272  CD1  ILE B 198      24.873  63.007  70.646  1.00  55.60      6
ATOM   3273  C    ILE B 198      27.731  63.000  74.299  1.00  30.75      6
ATOM   3274  O    ILE B 198      28.034  61.955  74.852  1.00  30.87      8
ATOM   3275  N    TRP B 199      27.847  64.179  74.901  1.00  48.14      7
ATOM   3276  CA   TRP B 199      28.312  64.280  76.282  1.00  50.03      6
ATOM   3277  CB   TRP B 199      29.041  65.602  76.544  1.00  51.23      6
ATOM   3278  CG   TRP B 199      30.115  65.946  75.560  1.00  52.27      6
ATOM   3279  CD2  TRP B 199      31.525  65.840  75.762  1.00  52.01      6
ATOM   3280  CE2  TRP B 199      32.149  66.243  74.564  1.00  51.99      6
ATOM   3281  CE3  TRP B 199      32.324  65.440  76.837  1.00  52.21      6
ATOM   3282  CD1  TRP B 199      29.946  66.401  74.282  1.00  52.95      6
ATOM   3283  NE1  TRP B 199      31.161  66.582  73.678  1.00  52.35      7
ATOM   3284  CZ2  TRP B 199      33.540  66.255  74.411  1.00  51.93      6
ATOM   3285  CZ3  TRP B 199      33.710  65.452  76.683  1.00  52.41      6
ATOM   3286  CH2  TRP B 199      34.301  65.856  75.480  1.00  51.86      6
ATOM   3287  C    TRP B 199      27.076  64.235  77.158  1.00  51.99      6
ATOM   3288  O    TRP B 199      26.265  65.164  77.145  1.00  52.37      8
ATOM   3289  N    THR B 200      26.928  63.155  77.920  1.00  95.11      7
ATOM   3290  CA   THR B 200      25.770  63.002  78.797  1.00  96.45      6
ATOM   3291  CB   THR B 200      24.694  62.115  78.166  1.00 148.63      6
ATOM   3292  OG1  THR B 200      24.987  60.742  78.445  1.00 149.74      8
ATOM   3293  CG2  THR B 200      24.666  62.310  76.678  1.00 147.62      6
ATOM   3294  C    THR B 200      26.150  62.350  80.113  1.00  96.31      6
ATOM   3295  O    THR B 200      26.988  61.452  80.152  1.00  96.11      8
```

```
ATOM   3296  N   ASP B 201    25.522  62.810  81.189  1.00  43.75    7
ATOM   3297  CA  ASP B 201    25.759  62.247  82.514  1.00  44.52    6
ATOM   3298  CB  ASP B 201    27.101  62.721  83.083  1.00  82.69    6
ATOM   3299  CG  ASP B 201    27.651  61.776  84.145  1.00  84.02    6
ATOM   3300  OD1 ASP B 201    26.866  61.333  85.011  1.00  85.42    8
ATOM   3301  OD2 ASP B 201    28.868  61.480  84.120  1.00  84.72    8
ATOM   3302  C   ASP B 201    24.615  62.631  83.446  1.00  44.46    6
ATOM   3303  O   ASP B 201    24.623  62.293  84.631  1.00  44.19    8
ATOM   3304  N   GLY B 202    23.624  63.329  82.898  1.00  75.55    7
ATOM   3305  CA  GLY B 202    22.477  63.706  83.692  1.00  75.47    6
ATOM   3306  C   GLY B 202    21.719  62.453  84.110  1.00  76.50    6
ATOM   3307  O   GLY B 202    20.547  62.549  84.483  1.00  77.97    8
ATOM   3308  N   SER B 203    22.392  61.292  84.035  1.00  55.59    7
ATOM   3309  CA  SER B 203    21.867  59.957  84.392  1.00  54.17    6
ATOM   3310  CB  SER B 203    20.356  59.993  84.676  1.00  91.62    6
ATOM   3311  OG  SER B 203    19.605  60.381  83.538  1.00  90.27    8
ATOM   3312  C   SER B 203    22.136  58.886  83.325  1.00  52.93    6
ATOM   3313  O   SER B 203    23.059  58.092  83.461  1.00  53.08    8
ATOM   3314  N   VAL B 204    21.309  58.875  82.277  1.00  69.60    7
ATOM   3315  CA  VAL B 204    21.390  57.927  81.154  1.00  68.03    6
ATOM   3316  CB  VAL B 204    20.338  58.242  80.108  1.00  35.10    6
ATOM   3317  CG1 VAL B 204    20.400  57.231  78.991  1.00  34.10    6
ATOM   3318  CG2 VAL B 204    18.985  58.275  80.746  1.00  34.56    6
ATOM   3319  C   VAL B 204    22.709  57.931  80.407  1.00  67.75    6
ATOM   3320  O   VAL B 204    23.357  58.962  80.309  1.00  69.06    8
ATOM   3321  N   THR B 205    23.082  56.793  79.829  1.00  49.09    7
ATOM   3322  CA  THR B 205    24.340  56.711  79.093  1.00  48.85    6
ATOM   3323  CB  THR B 205    24.767  55.263  78.850  1.00  77.86    6
ATOM   3324  OG1 THR B 205    24.007  54.721  77.768  1.00  79.05    8
ATOM   3325  CG2 THR B 205    24.542  54.429  80.092  1.00  78.88    6
ATOM   3326  C   THR B 205    24.225  57.400  77.737  1.00  49.21    6
ATOM   3327  O   THR B 205    23.131  57.794  77.327  1.00  49.54    8
ATOM   3328  N   PRO B 206    25.361  57.556  77.023  1.00  46.13    7
ATOM   3329  CD  PRO B 206    26.729  57.238  77.468  1.00  48.07    6
ATOM   3330  CA  PRO B 206    25.402  58.200  75.707  1.00  45.85    6
ATOM   3331  CB  PRO B 206    26.904  58.299  75.415  1.00  48.63    6
ATOM   3332  CG  PRO B 206    27.534  58.294  76.752  1.00  48.13    6
ATOM   3333  C   PRO B 206    24.674  57.407  74.626  1.00  47.15    6
ATOM   3334  O   PRO B 206    23.585  57.780  74.189  1.00  46.48    8
ATOM   3335  N   LEU B 207    25.304  56.318  74.191  1.00  76.94    7
ATOM   3336  CA  LEU B 207    24.746  55.460  73.155  1.00  77.75    6
ATOM   3337  CB  LEU B 207    25.444  54.099  73.169  1.00 101.16    6
ATOM   3338  CG  LEU B 207    25.120  53.141  72.022  1.00 101.47    6
ATOM   3339  CD1 LEU B 207    25.360  53.807  70.671  1.00 101.74    6
ATOM   3340  CD2 LEU B 207    25.988  51.910  72.173  1.00 101.71    6
ATOM   3341  C   LEU B 207    23.252  55.303  73.390  1.00  78.54    6
ATOM   3342  O   LEU B 207    22.470  55.176  72.446  1.00  78.25    8
ATOM   3343  N   GLU B 208    22.864  55.323  74.660  1.00  60.01    7
ATOM   3344  CA  GLU B 208    21.461  55.218  75.023  1.00  61.02    6
ATOM   3345  CB  GLU B 208    21.302  55.117  76.546  1.00 128.03    6
ATOM   3346  CG  GLU B 208    21.543  53.714  77.097  1.00 131.02    6
ATOM   3347  CD  GLU B 208    21.287  53.608  78.591  1.00 133.34    6
ATOM   3348  OE1 GLU B 208    20.215  54.062  79.041  1.00 134.35    8
ATOM   3349  OE2 GLU B 208    22.149  53.060  79.315  1.00 134.47    8
ATOM   3350  C   GLU B 208    20.742  56.458  74.497  1.00  60.26    6
ATOM   3351  O   GLU B 208    19.750  56.360  73.769  1.00  58.68    8
```

60

```
ATOM   3352   N    ALA B 209     21.249  57.625  74.865  1.00  65.53    7
ATOM   3353   CA   ALA B 209     20.653  58.857  74.402  1.00  65.98    6
ATOM   3354   CB   ALA B 209     21.552  60.033  74.735  1.00  16.71    6
ATOM   3355   C    ALA B 209     20.453  58.740  72.891  1.00  66.92    6
ATOM   3356   O    ALA B 209     19.319  58.605  72.431  1.00  67.52    8
ATOM   3357   N    LEU B 210     21.543  58.756  72.123  1.00  73.15    7
ATOM   3358   CA   LEU B 210     21.443  58.668  70.662  1.00  73.45    6
ATOM   3359   CB   LEU B 210     22.777  58.207  70.051  1.00  36.69    6
ATOM   3360   CG   LEU B 210     22.693  57.718  68.591  1.00  36.68    6
ATOM   3361   CD1  LEU B 210     22.266  58.832  67.646  1.00  36.19    6
ATOM   3362   CD2  LEU B 210     24.030  57.169  68.179  1.00  37.72    6
ATOM   3363   C    LEU B 210     20.312  57.752  70.178  1.00  73.95    6
ATOM   3364   O    LEU B 210     19.323  58.223  69.611  1.00  73.49    8
ATOM   3365   N    ASN B 211     20.464  56.450  70.414  1.00  95.72    7
ATOM   3366   CA   ASN B 211     19.475  55.452  70.005  1.00  94.91    6
ATOM   3367   CB   ASN B 211     19.789  54.099  70.646  1.00  47.61    6
ATOM   3368   CG   ASN B 211     20.941  53.388  69.969  1.00  48.99    6
ATOM   3369   OD1  ASN B 211     20.855  53.047  68.782  1.00  49.54    8
ATOM   3370   ND2  ASN B 211     22.025  53.156  70.711  1.00  49.80    7
ATOM   3371   C    ASN B 211     18.065  55.862  70.378  1.00  94.05    6
ATOM   3372   O    ASN B 211     17.183  55.935  69.524  1.00  94.10    8
ATOM   3373   N    GLN B 212     17.863  56.119  71.666  1.00  48.75    7
ATOM   3374   CA   GLN B 212     16.566  56.525  72.181  1.00  47.49    6
ATOM   3375   CB   GLN B 212     16.712  56.943  73.643  1.00  74.54    6
ATOM   3376   CG   GLN B 212     15.407  57.083  74.394  1.00  76.74    6
ATOM   3377   CD   GLN B 212     15.620  57.235  75.889  1.00  78.20    6
ATOM   3378   OE1  GLN B 212     16.241  56.384  76.535  1.00  79.21    8
ATOM   3379   NE2  GLN B 212     15.099  58.318  76.450  1.00  78.87    7
ATOM   3380   C    GLN B 212     16.011  57.678  71.342  1.00  46.38    6
ATOM   3381   O    GLN B 212     14.860  57.645  70.908  1.00  46.06    8
ATOM   3382   N    ALA B 213     16.840  58.690  71.104  1.00  58.18    7
ATOM   3383   CA   ALA B 213     16.434  59.836  70.304  1.00  56.70    6
ATOM   3384   CB   ALA B 213     17.506  60.900  70.344  1.00 101.95    6
ATOM   3385   C    ALA B 213     16.183  59.399  68.870  1.00  56.54    6
ATOM   3386   O    ALA B 213     15.253  59.886  68.229  1.00  56.71    8
ATOM   3387   N    VAL B 214     17.020  58.478  68.380  1.00  57.27    7
ATOM   3388   CA   VAL B 214     16.911  57.937  67.015  1.00  55.99    6
ATOM   3389   CB   VAL B 214     17.914  56.784  66.758  1.00  38.97    6
ATOM   3390   CG1  VAL B 214     17.831  56.354  65.291  1.00  40.50    6
ATOM   3391   CG2  VAL B 214     19.336  57.210  67.130  1.00  39.20    6
ATOM   3392   C    VAL B 214     15.519  57.359  66.847  1.00  55.21    6
ATOM   3393   O    VAL B 214     14.976  57.258  65.748  1.00  54.40    8
ATOM   3394   N    ALA B 215     14.963  56.955  67.972  1.00  35.62    7
ATOM   3395   CA   ALA B 215     13.641  56.403  68.008  1.00  34.92    6
ATOM   3396   CB   ALA B 215     13.494  55.553  69.237  1.00  13.87    6
ATOM   3397   C    ALA B 215     12.692  57.581  68.064  1.00  34.79    6
ATOM   3398   O    ALA B 215     11.673  57.605  67.394  1.00  35.53    8
ATOM   3399   N    ILE B 216     13.051  58.568  68.873  1.00  37.58    7
ATOM   3400   CA   ILE B 216     12.229  59.760  69.043  1.00  38.65    6
ATOM   3401   CB   ILE B 216     12.945  60.781  69.947  1.00  58.19    6
ATOM   3402   CG2  ILE B 216     11.991  61.919  70.298  1.00  59.13    6
ATOM   3403   CG1  ILE B 216     13.441  60.079  71.212  1.00  57.58    6
ATOM   3404   CD1  ILE B 216     14.218  60.959  72.142  1.00  58.61    6
ATOM   3405   C    ILE B 216     11.891  60.414  67.699  1.00  39.48    6
ATOM   3406   O    ILE B 216     10.762  60.881  67.482  1.00  38.93    8
ATOM   3407   N    LEU B 217     12.877  60.446  66.806  1.00  55.28    7
```

61

ATOM	3408	CA	LEU	B	217	12.700	61.025	65.481	1.00	56.43	6
ATOM	3409	CB	LEU	B	217	14.066	61.305	64.855	1.00	34.79	6
ATOM	3410	CG	LEU	B	217	14.067	61.729	63.387	1.00	34.72	6
ATOM	3411	CD1	LEU	B	217	13.484	63.118	63.280	1.00	33.77	6
ATOM	3412	CD2	LEU	B	217	15.478	61.688	62.826	1.00	33.56	6
ATOM	3413	C	LEU	B	217	11.915	60.041	64.606	1.00	58.48	6
ATOM	3414	O	LEU	B	217	10.955	60.420	63.931	1.00	58.68	8
ATOM	3415	N	LYS	B	218	12.340	58.775	64.635	1.00	79.73	7
ATOM	3416	CA	LYS	B	218	11.715	57.689	63.875	1.00	80.04	6
ATOM	3417	CB	LYS	B	218	12.239	56.347	64.384	1.00	60.98	6
ATOM	3418	CG	LYS	B	218	13.069	55.534	63.410	1.00	61.97	6
ATOM	3419	CD	LYS	B	218	13.516	54.221	64.104	1.00	64.17	6
ATOM	3420	CE	LYS	B	218	14.311	53.257	63.198	1.00	65.47	6
ATOM	3421	NZ	LYS	B	218	14.927	52.116	63.964	1.00	65.03	7
ATOM	3422	C	LYS	B	218	10.191	57.722	64.026	1.00	81.14	6
ATOM	3423	O	LYS	B	218	9.468	57.840	63.040	1.00	81.66	8
ATOM	3424	N	GLU	B	219	9.720	57.609	65.268	1.00	75.84	7
ATOM	3425	CA	GLU	B	219	8.295	57.626	65.579	1.00	77.32	6
ATOM	3426	CB	GLU	B	219	8.078	57.631	67.092	1.00	140.14	6
ATOM	3427	CG	GLU	B	219	6.668	58.061	67.478	1.00	143.68	6
ATOM	3428	CD	GLU	B	219	6.462	58.174	68.971	1.00	145.94	6
ATOM	3429	OE1	GLU	B	219	7.328	58.769	69.650	1.00	146.59	8
ATOM	3430	OE2	GLU	B	219	5.423	57.679	69.462	1.00	147.42	8
ATOM	3431	C	GLU	B	219	7.556	58.819	64.977	1.00	78.30	6
ATOM	3432	O	GLU	B	219	6.477	58.659	64.396	1.00	78.84	8
ATOM	3433	N	HIS	B	220	8.121	60.014	65.138	1.00	66.20	7
ATOM	3434	CA	HIS	B	220	7.504	61.227	64.609	1.00	66.15	6
ATOM	3435	CB	HIS	B	220	8.338	62.448	64.994	1.00	105.59	6
ATOM	3436	CG	HIS	B	220	8.015	62.991	66.349	1.00	108.40	6
ATOM	3437	CD2	HIS	B	220	8.405	62.596	67.584	1.00	109.60	6
ATOM	3438	ND1	HIS	B	220	7.157	64.054	66.540	1.00	109.83	7
ATOM	3439	CE1	HIS	B	220	7.034	64.291	67.834	1.00	110.63	6
ATOM	3440	NE2	HIS	B	220	7.782	63.420	68.489	1.00	111.13	7
ATOM	3441	C	HIS	B	220	7.343	61.148	63.102	1.00	65.62	6
ATOM	3442	O	HIS	B	220	6.311	61.534	62.561	1.00	65.51	8
ATOM	3443	N	LEU	B	221	8.370	60.640	62.429	1.00	64.25	7
ATOM	3444	CA	LEU	B	221	8.337	60.490	60.983	1.00	62.89	6
ATOM	3445	CB	LEU	B	221	9.520	59.655	60.508	1.00	40.10	6
ATOM	3446	CG	LEU	B	221	10.733	60.492	60.127	1.00	39.46	6
ATOM	3447	CD1	LEU	B	221	12.014	59.665	60.231	1.00	38.63	6
ATOM	3448	CD2	LEU	B	221	10.499	61.061	58.725	1.00	40.35	6
ATOM	3449	C	LEU	B	221	7.057	59.800	60.598	1.00	62.98	6
ATOM	3450	O	LEU	B	221	6.352	60.252	59.706	1.00	63.03	8
ATOM	3451	N	ASN	B	222	6.767	58.698	61.281	1.00	80.11	7
ATOM	3452	CA	ASN	B	222	5.561	57.927	61.033	1.00	80.71	6
ATOM	3453	CB	ASN	B	222	5.176	57.136	62.284	1.00	106.39	6
ATOM	3454	CG	ASN	B	222	6.127	55.993	62.568	1.00	108.39	6
ATOM	3455	OD1	ASN	B	222	6.008	55.318	63.591	1.00	109.32	8
ATOM	3456	ND2	ASN	B	222	7.072	55.761	61.660	1.00	108.36	7
ATOM	3457	C	ASN	B	222	4.411	58.842	60.642	1.00	80.66	6
ATOM	3458	O	ASN	B	222	3.870	58.734	59.542	1.00	81.98	8
ATOM	3459	N	TYR	B	223	4.057	59.744	61.555	1.00	63.38	7
ATOM	3460	CA	TYR	B	223	2.974	60.706	61.371	1.00	63.46	6
ATOM	3461	CB	TYR	B	223	3.332	61.991	62.111	1.00	60.86	6
ATOM	3462	CG	TYR	B	223	3.569	61.736	63.585	1.00	60.10	6
ATOM	3463	CD1	TYR	B	223	4.374	62.577	64.344	1.00	60.05	6

62

```
ATOM   3464   CE1   TYR  B  223        4.605   62.326   65.696   1.00   59.49    6
ATOM   3465   CD2   TYR  B  223        2.993   60.637   64.217   1.00   60.08    6
ATOM   3466   CE2   TYR  B  223        3.214   60.379   65.560   1.00   60.21    6
ATOM   3467   CZ    TYR  B  223        4.022   61.224   66.297   1.00   59.74    6
ATOM   3468   OH    TYR  B  223        4.248   60.951   67.631   1.00   59.35    8
ATOM   3469   C     TYR  B  223        2.646   60.987   59.913   1.00   64.43    6
ATOM   3470   O     TYR  B  223        1.480   61.164   59.558   1.00   64.54    8
ATOM   3471   N     PHE  B  224        3.678   61.022   59.074   1.00   73.75    7
ATOM   3472   CA    PHE  B  224        3.502   61.238   57.645   1.00   74.89    6
ATOM   3473   CB    PHE  B  224        4.815   61.699   56.983   1.00   86.72    6
ATOM   3474   CG    PHE  B  224        5.376   62.988   57.543   1.00   87.15    6
ATOM   3475   CD1   PHE  B  224        6.108   62.992   58.728   1.00   87.88    6
ATOM   3476   CD2   PHE  B  224        5.171   64.197   56.885   1.00   86.49    6
ATOM   3477   CE1   PHE  B  224        6.624   64.174   59.245   1.00   87.12    6
ATOM   3478   CE2   PHE  B  224        5.684   65.385   57.398   1.00   85.69    6
ATOM   3479   CZ    PHE  B  224        6.410   65.373   58.578   1.00   86.13    6
ATOM   3480   C     PHE  B  224        3.061   59.897   57.053   1.00   76.36    6
ATOM   3481   O     PHE  B  224        3.744   59.311   56.211   1.00   76.67    8
ATOM   3482   N     ALA  B  225        1.916   59.413   57.523   1.00   80.05    7
ATOM   3483   CA    ALA  B  225        1.360   58.149   57.059   1.00   81.59    6
ATOM   3484   CB    ALA  B  225        1.234   57.174   58.225   1.00   74.53    6
ATOM   3485   C     ALA  B  225       -0.001   58.365   56.407   1.00   83.07    6
ATOM   3486   O     ALA  B  225       -0.103   58.491   55.188   1.00   83.49    8
ATOM   3487   N     ASN  B  226       -1.049   58.410   57.220   1.00   69.91    7
ATOM   3488   CA    ASN  B  226       -2.390   58.608   56.689   1.00   72.09    6
ATOM   3489   CB    ASN  B  226       -3.405   57.834   57.525   1.00   91.37    6
ATOM   3490   CG    ASN  B  226       -3.139   56.343   57.519   1.00   92.71    6
ATOM   3491   OD1   ASN  B  226       -3.209   55.690   56.476   1.00   91.90    8
ATOM   3492   ND2   ASN  B  226       -2.828   55.796   58.687   1.00   93.91    7
ATOM   3493   C     ASN  B  226       -2.734   60.088   56.670   1.00   73.36    6
ATOM   3494   O     ASN  B  226       -2.610   60.771   57.683   1.00   74.07    8
ATOM   3495   N     PRO  B  227       -3.157   60.602   55.502   1.00  115.46    7
ATOM   3496   CD    PRO  B  227       -2.811   59.980   54.207   1.00   39.04    6
ATOM   3497   CA    PRO  B  227       -3.522   62.013   55.317   1.00  116.36    6
ATOM   3498   CB    PRO  B  227       -2.727   62.390   54.077   1.00   39.80    6
ATOM   3499   CG    PRO  B  227       -2.919   61.146   53.223   1.00   39.44    6
ATOM   3500   C     PRO  B  227       -5.008   62.361   55.141   1.00  118.18    6
ATOM   3501   O     PRO  B  227       -5.859   61.494   54.963   1.00  118.42    8
ATOM   3502   N     GLU  B  228       -5.294   63.656   55.199   1.00  106.47    7
ATOM   3503   CA    GLU  B  228       -6.636   64.181   54.991   1.00  108.65    6
ATOM   3504   CB    GLU  B  228       -7.302   64.555   56.319   1.00  173.49    6
ATOM   3505   CG    GLU  B  228       -8.736   65.043   56.146   1.00  177.01    6
ATOM   3506   CD    GLU  B  228       -9.474   65.203   57.459   1.00  179.13    6
ATOM   3507   OE1   GLU  B  228       -9.021   65.999   58.309   1.00  181.08    8
ATOM   3508   OE2   GLU  B  228      -10.514   64.534   57.635   1.00  180.01    8
ATOM   3509   C     GLU  B  228       -6.406   65.425   54.128   1.00  110.13    6
ATOM   3510   O     GLU  B  228       -6.091   66.501   54.635   1.00  110.94    8
ATOM   3511   N     ALA  B  229       -6.561   65.265   52.818   1.00   60.59    7
ATOM   3512   CA    ALA  B  229       -6.311   66.344   51.876   1.00   61.24    6
ATOM   3513   CB    ALA  B  229       -5.424   65.825   50.764   1.00   14.58    6
ATOM   3514   C     ALA  B  229       -7.527   67.025   51.266   1.00   62.40    6
ATOM   3515   O     ALA  B  229       -8.670   66.677   51.551   1.00   62.49    8
ATOM   3516   N     SER  B  230       -7.236   68.005   50.413   1.00   80.99    7
ATOM   3517   CA    SER  B  230       -8.231   68.789   49.690   1.00   83.43    6
ATOM   3518   CB    SER  B  230       -8.273   70.220   50.237   1.00  134.32    6
ATOM   3519   OG    SER  B  230       -8.505   70.230   51.635   1.00  135.82    8
```

63

```
ATOM   3520  C    SER B 230      -7.766  68.805  48.234  1.00 84.59      6
ATOM   3521  O    SER B 230      -6.569  68.843  47.973  1.00 84.28      8
ATOM   3522  N    SER B 231      -8.703  68.782  47.291  1.00152.80      7
ATOM   3523  CA   SER B 231      -8.360  68.774  45.867  1.00154.78      6
ATOM   3524  CB   SER B 231      -9.544  68.232  45.056  1.00208.87      6
ATOM   3525  OG   SER B 231     -10.734  68.948  45.338  1.00208.87      8
ATOM   3526  C    SER B 231      -7.933  70.141  45.320  1.00155.53      6
ATOM   3527  O    SER B 231      -8.412  70.526  44.231  1.00155.94      8
ATOM   3528  OXT  SER B 231      -7.102  70.803  45.978  1.00208.87      8
ATOM   3529  CB   ALA C   2       8.362  95.868  32.510  1.00125.97      6
ATOM   3530  C    ALA C   2      10.376  97.139  31.725  1.00 93.91      6
ATOM   3531  O    ALA C   2      11.120  96.421  32.394  1.00 93.90      8
ATOM   3532  N    ALA C   2       8.926  95.898  30.107  1.00 94.38      7
ATOM   3533  CA   ALA C   2       8.955  96.695  31.369  1.00 94.22      6
ATOM   3534  N    ILE C   3      10.744  98.330  31.276  1.00119.26      7
ATOM   3535  CA   ILE C   3      12.067  98.868  31.547  1.00117.83      6
ATOM   3536  CB   ILE C   3      12.862  99.056  30.224  1.00 58.24      6
ATOM   3537  CG2  ILE C   3      14.219  99.663  30.496  1.00 58.03      6
ATOM   3538  CG1  ILE C   3      13.034  97.707  29.519  1.00 58.36      6
ATOM   3539  CD1  ILE C   3      14.019  96.765  30.177  1.00 56.18      6
ATOM   3540  C    ILE C   3      11.892 100.215  32.237  1.00117.16      6
ATOM   3541  O    ILE C   3      11.383 101.155  31.628  1.00117.61      8
ATOM   3542  N    LYS C   4      12.290 100.307  33.507  1.00 25.32      7
ATOM   3543  CA   LYS C   4      12.161 101.565  34.243  1.00 24.08      6
ATOM   3544  CB   LYS C   4      11.855 101.287  35.718  1.00108.61      6
ATOM   3545  CG   LYS C   4      11.397 102.522  36.477  1.00111.82      6
ATOM   3546  CD   LYS C   4      10.806 102.188  37.843  1.00114.29      6
ATOM   3547  CE   LYS C   4      10.245 103.444  38.512  1.00116.05      6
ATOM   3548  NZ   LYS C   4       9.624 103.185  39.844  1.00117.65      7
ATOM   3549  C    LYS C   4      13.417 102.440  34.102  1.00 22.74      6
ATOM   3550  O    LYS C   4      14.514 102.054  34.485  1.00 21.59      8
ATOM   3551  N    ARG C   5      13.258 103.622  33.527  1.00 40.10      7
ATOM   3552  CA   ARG C   5      14.405 104.482  33.356  1.00 41.90      6
ATOM   3553  CB   ARG C   5      14.312 105.225  32.019  1.00 84.10      6
ATOM   3554  CG   ARG C   5      15.613 105.922  31.616  1.00 86.67      6
ATOM   3555  CD   ARG C   5      15.822 105.907  30.105  1.00 88.03      6
ATOM   3556  NE   ARG C   5      17.166 106.347  29.739  1.00 89.24      7
ATOM   3557  CZ   ARG C   5      17.695 106.206  28.527  1.00 90.34      6
ATOM   3558  NH1  ARG C   5      16.996 105.635  27.553  1.00 91.45      7
ATOM   3559  NH2  ARG C   5      18.927 106.633  28.286  1.00 90.51      7
ATOM   3560  C    ARG C   5      14.526 105.462  34.515  1.00 42.57      6
ATOM   3561  O    ARG C   5      13.551 105.754  35.198  1.00 42.05      8
ATOM   3562  N    PHE C   6      15.743 105.946  34.739  1.00 41.22      7
ATOM   3563  CA   PHE C   6      16.053 106.895  35.804  1.00 42.96      6
ATOM   3564  CB   PHE C   6      16.862 106.193  36.915  1.00 74.13      6
ATOM   3565  CG   PHE C   6      16.116 105.090  37.642  1.00 74.47      6
ATOM   3566  CD1  PHE C   6      15.633 103.981  36.963  1.00 74.97      6
ATOM   3567  CD2  PHE C   6      15.898 105.171  39.013  1.00 74.02      6
ATOM   3568  CE1  PHE C   6      14.942 102.975  37.643  1.00 74.17      6
ATOM   3569  CE2  PHE C   6      15.210 104.172  39.694  1.00 72.21      6
ATOM   3570  CZ   PHE C   6      14.732 103.076  39.010  1.00 72.32      6
ATOM   3571  C    PHE C   6      16.950 107.919  35.121  1.00 44.27      6
ATOM   3572  O    PHE C   6      17.774 107.508  34.310  1.00 44.21      8
ATOM   3573  N    GLY C   7      16.817 109.221  35.408  1.00 93.24      7
ATOM   3574  CA   GLY C   7      17.711 110.177  34.750  1.00 95.08      6
ATOM   3575  C    GLY C   7      17.441 111.682  34.660  1.00 95.99      6
```

```
ATOM   3576  O    GLY C   7      16.818 112.268  35.548  1.00  95.32      8
ATOM   3577  N    ARG C   8      17.956 112.298  33.583  1.00  71.19      7
ATOM   3578  CA   ARG C   8      17.813 113.738  33.283  1.00  72.07      6
ATOM   3579  CB   ARG C   8      18.364 114.580  34.432  1.00 113.66      6
ATOM   3580  CG   ARG C   8      17.325 115.062  35.414  1.00 115.61      6
ATOM   3581  CD   ARG C   8      17.948 116.047  36.382  1.00 118.64      6
ATOM   3582  NE   ARG C   8      16.997 116.518  37.381  1.00 121.32      7
ATOM   3583  CZ   ARG C   8      17.309 117.340  38.377  1.00 122.59      6
ATOM   3584  NH1  ARG C   8      18.553 117.786  38.506  1.00 121.72      7
ATOM   3585  NH2  ARG C   8      16.377 117.713  39.245  1.00 124.20      7
ATOM   3586  C    ARG C   8      18.469 114.214  31.958  1.00  71.82      6
ATOM   3587  O    ARG C   8      19.507 113.707  31.543  1.00  71.24      8
ATOM   3588  N    ILE C   9      17.844 115.204  31.319  1.00  97.66      7
ATOM   3589  CA   ILE C   9      18.289 115.817  30.055  1.00  99.18      6
ATOM   3590  CB   ILE C   9      19.471 116.816  30.286  1.00 113.15      6
ATOM   3591  CG2  ILE C   9      19.860 117.489  28.975  1.00 113.13      6
ATOM   3592  CG1  ILE C   9      19.043 117.954  31.221  1.00 113.50      6
ATOM   3593  CD1  ILE C   9      18.806 117.547  32.651  1.00 114.11      6
ATOM   3594  C    ILE C   9      18.652 114.882  28.889  1.00  99.69      6
ATOM   3595  O    ILE C   9      17.787 114.176  28.371  1.00  99.98      8
ATOM   3596  N    ARG C  10      19.923 114.907  28.479  1.00  91.44      7
ATOM   3597  CA   ARG C  10      20.469 114.115  27.365  1.00  91.76      6
ATOM   3598  CB   ARG C  10      19.799 112.738  27.277  1.00 175.32      6
ATOM   3599  CG   ARG C  10      20.491 111.780  26.317  1.00 178.69      6
ATOM   3600  CD   ARG C  10      19.809 110.423  26.287  1.00 181.18      6
ATOM   3601  NE   ARG C  10      20.567 109.457  25.498  1.00 183.82      7
ATOM   3602  CZ   ARG C  10      20.194 108.196  25.303  1.00 185.19      6
ATOM   3603  NH1  ARG C  10      19.067 107.745  25.838  1.00 185.55      7
ATOM   3604  NH2  ARG C  10      20.950 107.385  24.575  1.00 186.22      7
ATOM   3605  C    ARG C  10      20.281 114.875  26.045  1.00  91.37      6
ATOM   3606  O    ARG C  10      19.738 114.343  25.074  1.00  91.78      8
ATOM   3607  N    GLU C  11      20.758 116.119  26.028  1.00  37.16      7
ATOM   3608  CA   GLU C  11      20.654 117.028  24.883  1.00  36.54      6
ATOM   3609  CB   GLU C  11      21.407 118.309  25.202  1.00  82.90      6
ATOM   3610  CG   GLU C  11      21.511 119.279  24.057  1.00  84.74      6
ATOM   3611  CD   GLU C  11      22.173 120.560  24.489  1.00  86.15      6
ATOM   3612  OE1  GLU C  11      23.250 120.472  25.108  1.00  87.27      8
ATOM   3613  OE2  GLU C  11      21.624 121.651  24.221  1.00  87.25      8
ATOM   3614  C    GLU C  11      21.087 116.547  23.509  1.00  36.03      6
ATOM   3615  O    GLU C  11      20.621 117.077  22.505  1.00  36.52      8
ATOM   3616  N    VAL C  12      21.980 115.563  23.453  1.00  63.96      7
ATOM   3617  CA   VAL C  12      22.465 115.037  22.174  1.00  63.48      6
ATOM   3618  CB   VAL C  12      23.871 115.645  21.828  1.00  43.42      6
ATOM   3619  CG1  VAL C  12      24.359 115.158  20.481  1.00  43.03      6
ATOM   3620  CG2  VAL C  12      23.782 117.160  21.807  1.00  41.74      6
ATOM   3621  C    VAL C  12      22.525 113.498  22.181  1.00  63.52      6
ATOM   3622  O    VAL C  12      21.596 112.838  22.653  1.00  64.01      8
ATOM   3623  N    ILE C  13      23.614 112.945  21.651  1.00  82.06      7
ATOM   3624  CA   ILE C  13      23.830 111.502  21.563  1.00  82.83      6
ATOM   3625  CB   ILE C  13      23.440 110.967  20.150  1.00  46.79      6
ATOM   3626  CG2  ILE C  13      24.586 110.181  19.525  1.00  46.26      6
ATOM   3627  CG1  ILE C  13      22.197 110.086  20.244  1.00  46.68      6
ATOM   3628  CD1  ILE C  13      20.964 110.830  20.703  1.00  47.84      6
ATOM   3629  C    ILE C  13      25.313 111.220  21.813  1.00  83.68      6
ATOM   3630  O    ILE C  13      26.152 112.109  21.632  1.00  84.19      8
ATOM   3631  N    PRO C  14      25.658 109.979  22.226  1.00 200.26      7
```

65

```
ATOM    3632  CD   PRO C  14      24.784 108.804  22.390  1.00143.05       6
ATOM    3633  CA   PRO C  14      27.055 109.613  22.492  1.00200.29       6
ATOM    3634  CB   PRO C  14      26.958 108.144  22.909  1.00142.05       6
ATOM    3635  CG   PRO C  14      25.752 107.666  22.176  1.00143.08       6
ATOM    3636  C    PRO C  14      27.968 109.827  21.289  1.00198.70       6
ATOM    3637  O    PRO C  14      29.189 109.735  21.406  1.00199.16       8
ATOM    3638  N    LEU C  15      27.362 110.104  20.137  1.00 90.84       7
ATOM    3639  CA   LEU C  15      28.091 110.369  18.901  1.00 91.40       6
ATOM    3640  CB   LEU C  15      29.307 111.242  19.178  1.00 74.19       6
ATOM    3641  CG   LEU C  15      30.246 111.448  17.993  1.00 73.88       6
ATOM    3642  CD1  LEU C  15      29.550 112.193  16.853  1.00 73.64       6
ATOM    3643  CD2  LEU C  15      31.437 112.218  18.495  1.00 73.28       6
ATOM    3644  C    LEU C  15      28.551 109.146  18.135  1.00 91.83       6
ATOM    3645  O    LEU C  15      29.665 108.659  18.333  1.00 92.24       8
ATOM    3646  N    PRO C  16      27.711 108.653  17.216  1.00 77.46       7
ATOM    3647  CD   PRO C  16      26.444 109.243  16.749  1.00201.81       6
ATOM    3648  CA   PRO C  16      28.062 107.475  16.421  1.00 76.68       6
ATOM    3649  CB   PRO C  16      26.816 107.255  15.567  1.00201.48       6
ATOM    3650  CG   PRO C  16      26.309 108.651  15.365  1.00202.73       6
ATOM    3651  C    PRO C  16      29.312 107.703  15.579  1.00 74.58       6
ATOM    3652  O    PRO C  16      29.660 108.831  15.248  1.00 73.75       8
ATOM    3653  N    PRO C  17      29.999 106.622  15.222  1.00 94.18       7
ATOM    3654  CD   PRO C  17      30.910 106.529  14.067  1.00208.87       6
ATOM    3655  CA   PRO C  17      29.555 105.294  15.633  1.00 92.59       6
ATOM    3656  CB   PRO C  17      29.755 104.479  14.370  1.00208.87       6
ATOM    3657  CG   PRO C  17      31.069 105.022  13.882  1.00208.87       6
ATOM    3658  C    PRO C  17      30.410 104.778  16.767  1.00 88.70       6
ATOM    3659  O    PRO C  17      30.400 103.588  17.055  1.00 88.26       8
ATOM    3660  N    LEU C  18      31.143 105.676  17.410  1.00 55.26       7
ATOM    3661  CA   LEU C  18      32.039 105.281  18.485  1.00 51.42       6
ATOM    3662  CB   LEU C  18      31.421 104.184  19.356  1.00 53.94       6
ATOM    3663  CG   LEU C  18      30.219 104.518  20.241  1.00 53.68       6
ATOM    3664  CD1  LEU C  18      29.655 103.219  20.819  1.00 53.23       6
ATOM    3665  CD2  LEU C  18      30.643 105.475  21.358  1.00 52.67       6
ATOM    3666  C    LEU C  18      33.291 104.752  17.804  1.00 49.36       6
ATOM    3667  O    LEU C  18      34.399 105.087  18.201  1.00 49.27       8
ATOM    3668  N    THR C  19      33.109 103.920  16.780  1.00 20.15       7
ATOM    3669  CA   THR C  19      34.236 103.387  16.017  1.00 18.27       6
ATOM    3670  CB   THR C  19      33.908 102.070  15.315  1.00 40.27       6
ATOM    3671  OG1  THR C  19      32.747 102.248  14.494  1.00 40.82       8
ATOM    3672  CG2  THR C  19      33.669 100.974  16.318  1.00 40.29       6
ATOM    3673  C    THR C  19      34.504 104.411  14.925  1.00 17.52       6
ATOM    3674  O    THR C  19      34.690 104.063  13.759  1.00 16.43       8
ATOM    3675  N    GLU C  20      34.503 105.678  15.314  1.00 36.78       7
ATOM    3676  CA   GLU C  20      34.730 106.759  14.378  1.00 38.00       6
ATOM    3677  CB   GLU C  20      33.761 107.900  14.677  1.00 83.62       6
ATOM    3678  CG   GLU C  20      33.772 109.033  13.669  1.00 85.64       6
ATOM    3679  CD   GLU C  20      33.406 110.357  14.311  1.00 87.68       6
ATOM    3680  OE1  GLU C  20      33.203 111.351  13.579  1.00 88.74       8
ATOM    3681  OE2  GLU C  20      33.335 110.401  15.560  1.00 88.07       8
ATOM    3682  C    GLU C  20      36.171 107.256  14.458  1.00 37.77       6
ATOM    3683  O    GLU C  20      36.635 107.952  13.547  1.00 37.06       8
ATOM    3684  N    ILE C  21      36.882 106.917  15.537  1.00 33.12       7
ATOM    3685  CA   ILE C  21      38.271 107.361  15.648  1.00 35.17       6
ATOM    3686  CB   ILE C  21      39.008 106.782  16.864  1.00 70.71       6
ATOM    3687  CG2  ILE C  21      40.388 107.421  16.972  1.00 70.79       6
```

66

```
ATOM   3688  CG1 ILE C  21      38.240 107.095  18.144  1.00 72.41      6
ATOM   3689  CD1 ILE C  21      38.119 108.584  18.428  1.00 73.92      6
ATOM   3690  C   ILE C  21      38.911 106.808  14.402  1.00 36.07      6
ATOM   3691  O   ILE C  21      39.725 107.473  13.766  1.00 35.93      8
ATOM   3692  N   GLN C  22      38.513 105.580  14.067  1.00 69.90      7
ATOM   3693  CA  GLN C  22      38.978 104.882  12.874  1.00 71.08      6
ATOM   3694  CB  GLN C  22      39.300 103.429  13.206  1.00 51.83      6
ATOM   3695  CG  GLN C  22      40.499 103.265  14.124  1.00 51.01      6
ATOM   3696  CD  GLN C  22      40.953 101.825  14.232  1.00 50.49      6
ATOM   3697  OE1 GLN C  22      40.187 100.959  14.651  1.00 51.17      8
ATOM   3698  NE2 GLN C  22      42.202 101.561  13.854  1.00 49.03      7
ATOM   3699  C   GLN C  22      37.827 104.958  11.880  1.00 72.24      6
ATOM   3700  O   GLN C  22      37.053 105.910  11.926  1.00 72.58      8
ATOM   3701  N   VAL C  23      37.698 103.979  10.989  1.00 54.37      7
ATOM   3702  CA  VAL C  23      36.595 104.006  10.031  1.00 55.27      6
ATOM   3703  CB  VAL C  23      35.227 103.880  10.746  1.00 45.46      6
ATOM   3704  CG1 VAL C  23      34.080 104.090   9.748  1.00 45.92      6
ATOM   3705  CG2 VAL C  23      35.117 102.528  11.423  1.00 46.45      6
ATOM   3706  C   VAL C  23      36.588 105.323   9.270  1.00 56.22      6
ATOM   3707  O   VAL C  23      37.149 105.423   8.180  1.00 57.00      8
ATOM   3708  N   GLU C  24      35.933 106.324   9.862  1.00 39.91      7
ATOM   3709  CA  GLU C  24      35.821 107.663   9.288  1.00 41.34      6
ATOM   3710  CB  GLU C  24      34.757 108.486  10.025  1.00111.93      6
ATOM   3711  CG  GLU C  24      33.323 108.053   9.752  1.00116.16      6
ATOM   3712  CD  GLU C  24      32.307 108.949  10.430  1.00118.56      6
ATOM   3713  OE1 GLU C  24      32.302 110.163  10.148  1.00120.21      8
ATOM   3714  OE2 GLU C  24      31.507 108.446  11.245  1.00120.53      8
ATOM   3715  C   GLU C  24      37.150 108.376   9.365  1.00 40.87      6
ATOM   3716  O   GLU C  24      37.227 109.589   9.188  1.00 41.48      8
ATOM   3717  N   SER C  25      38.194 107.609   9.643  1.00 48.64      7
ATOM   3718  CA  SER C  25      39.533 108.154   9.722  1.00 48.38      6
ATOM   3719  CB  SER C  25      40.287 107.593  10.930  1.00 73.51      6
ATOM   3720  OG  SER C  25      41.621 108.083  10.983  1.00 73.78      8
ATOM   3721  C   SER C  25      40.255 107.750   8.461  1.00 47.83      6
ATOM   3722  O   SER C  25      40.710 108.593   7.698  1.00 47.42      8
ATOM   3723  N   TYR C  26      40.346 106.446   8.243  1.00 54.43      7
ATOM   3724  CA  TYR C  26      41.034 105.924   7.077  1.00 54.68      6
ATOM   3725  CB  TYR C  26      40.858 104.404   7.005  1.00 49.43      6
ATOM   3726  CG  TYR C  26      42.038 103.677   6.406  1.00 47.66      6
ATOM   3727  CD1 TYR C  26      43.210 103.498   7.128  1.00 46.59      6
ATOM   3728  CE1 TYR C  26      44.299 102.857   6.572  1.00 46.24      6
ATOM   3729  CD2 TYR C  26      41.990 103.191   5.109  1.00 47.36      6
ATOM   3730  CE2 TYR C  26      43.077 102.550   4.549  1.00 47.16      6
ATOM   3731  CZ  TYR C  26      44.227 102.384   5.282  1.00 46.35      6
ATOM   3732  OH  TYR C  26      45.303 101.734   4.718  1.00 46.49      8
ATOM   3733  C   TYR C  26      40.480 106.572   5.814  1.00 55.37      6
ATOM   3734  O   TYR C  26      41.221 107.148   5.014  1.00 55.48      8
ATOM   3735  N   LYS C  27      39.167 106.474   5.654  1.00 60.13      7
ATOM   3736  CA  LYS C  27      38.474 107.031   4.503  1.00 60.39      6
ATOM   3737  CB  LYS C  27      36.976 107.042   4.777  1.00 79.68      6
ATOM   3738  CG  LYS C  27      36.140 107.634   3.670  1.00 81.33      6
ATOM   3739  CD  LYS C  27      34.664 107.567   4.037  1.00 83.89      6
ATOM   3740  CE  LYS C  27      33.765 108.050   2.909  1.00 85.68      6
ATOM   3741  NZ  LYS C  27      32.338 107.749   3.215  1.00 86.18      7
ATOM   3742  C   LYS C  27      38.947 108.442   4.188  1.00 60.15      6
ATOM   3743  O   LYS C  27      39.368 108.729   3.070  1.00 60.17      8
```

67

```
ATOM   3744  N    LYS C  28      38.889 109.317   5.188  1.00 50.23     7
ATOM   3745  CA   LYS C  28      39.283 110.709   5.008  1.00 51.29     6
ATOM   3746  CB   LYS C  28      38.838 111.557   6.205  1.00208.87     6
ATOM   3747  CG   LYS C  28      39.587 111.276   7.499  1.00208.87     6
ATOM   3748  CD   LYS C  28      39.211 112.278   8.581  1.00208.87     6
ATOM   3749  CE   LYS C  28      40.027 112.062   9.843  1.00208.87     6
ATOM   3750  NZ   LYS C  28      39.705 113.078  10.880  1.00208.87     7
ATOM   3751  C    LYS C  28      40.776 110.872   4.802  1.00 50.07     6
ATOM   3752  O    LYS C  28      41.266 111.991   4.625  1.00 49.02     8
ATOM   3753  N    ALA C  29      41.491 109.753   4.841  1.00 30.72     7
ATOM   3754  CA   ALA C  29      42.934 109.748   4.647  1.00 30.33     6
ATOM   3755  CB   ALA C  29      43.617 108.995   5.766  1.00 73.05     6
ATOM   3756  C    ALA C  29      43.108 109.015   3.349  1.00 30.18     6
ATOM   3757  O    ALA C  29      43.954 109.363   2.528  1.00 29.71     8
ATOM   3758  N    LEU C  30      42.282 107.990   3.184  1.00 47.18     7
ATOM   3759  CA   LEU C  30      42.264 107.170   1.988  1.00 49.80     6
ATOM   3760  CB   LEU C  30      41.920 105.727   2.355  1.00 77.57     6
ATOM   3761  CG   LEU C  30      41.923 104.720   1.207  1.00 79.55     6
ATOM   3762  CD1  LEU C  30      43.315 104.599   0.633  1.00 80.89     6
ATOM   3763  CD2  LEU C  30      41.438 103.384   1.708  1.00 79.00     6
ATOM   3764  C    LEU C  30      41.190 107.770   1.067  1.00 50.91     6
ATOM   3765  O    LEU C  30      40.442 107.056   0.390  1.00 50.20     8
ATOM   3766  N    GLN C  31      41.126 109.100   1.071  1.00108.17     7
ATOM   3767  CA   GLN C  31      40.181 109.874   0.269  1.00108.50     6
ATOM   3768  CB   GLN C  31      40.839 111.190  -0.137  1.00 55.88     6
ATOM   3769  CG   GLN C  31      40.877 112.184   0.993  1.00 54.19     6
ATOM   3770  CD   GLN C  31      41.888 113.291   0.797  1.00 54.53     6
ATOM   3771  OE1  GLN C  31      42.243 113.639  -0.321  1.00 53.64     8
ATOM   3772  NE2  GLN C  31      42.350 113.864   1.900  1.00 55.77     7
ATOM   3773  C    GLN C  31      39.666 109.141  -0.963  1.00110.03     6
ATOM   3774  O    GLN C  31      38.491 109.245  -1.312  1.00110.78     8
ATOM   3775  N    ALA C  32      40.567 108.412  -1.610  1.00112.39     7
ATOM   3776  CA   ALA C  32      40.277 107.621  -2.801  1.00114.14     6
ATOM   3777  CB   ALA C  32      40.562 106.153  -2.511  1.00162.72     6
ATOM   3778  C    ALA C  32      38.888 107.755  -3.409  1.00115.03     6
ATOM   3779  O    ALA C  32      38.744 108.151  -4.563  1.00115.39     8
ATOM   3780  N    ASP C  33      37.873 107.405  -2.630  1.00 75.66     7
ATOM   3781  CA   ASP C  33      36.489 107.449  -3.075  1.00 76.40     6
ATOM   3782  CB   ASP C  33      35.594 106.892  -1.967  1.00 98.63     6
ATOM   3783  CG   ASP C  33      34.129 106.919  -2.333  1.00 99.96     6
ATOM   3784  OD1  ASP C  33      33.366 107.650  -1.662  1.00100.46     8
ATOM   3785  OD2  ASP C  33      33.745 106.219  -3.293  1.00100.94     8
ATOM   3786  C    ASP C  33      35.943 108.802  -3.546  1.00 76.86     6
ATOM   3787  O    ASP C  33      34.732 108.996  -3.594  1.00 77.28     8
ATOM   3788  N    VAL C  34      36.819 109.738  -3.898  1.00106.73     7
ATOM   3789  CA   VAL C  34      36.361 111.039  -4.392  1.00108.50     6
ATOM   3790  CB   VAL C  34      36.564 112.136  -3.340  1.00 44.84     6
ATOM   3791  CG1  VAL C  34      37.139 113.387  -3.962  1.00 43.21     6
ATOM   3792  CG2  VAL C  34      35.234 112.468  -2.722  1.00 46.76     6
ATOM   3793  C    VAL C  34      37.035 111.450  -5.702  1.00110.20     6
ATOM   3794  O    VAL C  34      38.263 111.561  -5.772  1.00111.68     8
ATOM   3795  N    PRO C  35      36.229 111.701  -6.754  1.00 66.15     7
ATOM   3796  CD   PRO C  35      34.774 111.914  -6.644  1.00152.93     6
ATOM   3797  CA   PRO C  35      36.704 112.097  -8.082  1.00 66.89     6
ATOM   3798  CB   PRO C  35      35.556 112.940  -8.609  1.00152.71     6
ATOM   3799  CG   PRO C  35      34.376 112.198  -8.084  1.00153.29     6
```

```
ATOM   3800  C   PRO C  35      38.005 112.865  -7.999  1.00 67.29      6
ATOM   3801  O   PRO C  35      38.047 113.955  -7.444  1.00 68.02      8
ATOM   3802  N   PRO C  36      39.090 112.284  -8.534  1.00 59.92      7
ATOM   3803  CD  PRO C  36      39.041 110.962  -9.189  1.00 60.17      6
ATOM   3804  CA  PRO C  36      40.452 112.821  -8.576  1.00 61.78      6
ATOM   3805  CB  PRO C  36      41.056 112.088  -9.763  1.00 60.22      6
ATOM   3806  CG  PRO C  36      40.506 110.707  -9.559  1.00 60.65      6
ATOM   3807  C   PRO C  36      40.592 114.331  -8.683  1.00 62.61      6
ATOM   3808  O   PRO C  36      41.698 114.859  -8.596  1.00 63.80      8
ATOM   3809  N   GLU C  37      39.476 115.023  -8.877  1.00 97.57      7
ATOM   3810  CA  GLU C  37      39.491 116.475  -8.975  1.00 98.61      6
ATOM   3811  CB  GLU C  37      38.189 116.969  -9.615  1.00120.72      6
ATOM   3812  CG  GLU C  37      37.946 116.409 -11.018  1.00122.45      6
ATOM   3813  CD  GLU C  37      36.725 117.014 -11.695  1.00123.66      6
ATOM   3814  OE1 GLU C  37      36.713 118.245 -11.915  1.00124.43      8
ATOM   3815  OE2 GLU C  37      35.775 116.265 -12.011  1.00124.87      8
ATOM   3816  C   GLU C  37      39.691 117.112  -7.588  1.00 98.50      6
ATOM   3817  O   GLU C  37      40.606 117.923  -7.401  1.00 98.69      8
ATOM   3818  N   LYS C  38      38.856 116.740  -6.614  1.00 57.30      7
ATOM   3819  CA  LYS C  38      38.989 117.296  -5.265  1.00 57.57      6
ATOM   3820  CB  LYS C  38      37.606 117.569  -4.649  1.00126.96      6
ATOM   3821  CG  LYS C  38      36.600 116.430  -4.700  1.00128.66      6
ATOM   3822  CD  LYS C  38      35.284 116.855  -4.040  1.00129.19      6
ATOM   3823  CE  LYS C  38      34.243 115.747  -4.058  1.00129.10      6
ATOM   3824  NZ  LYS C  38      32.995 116.155  -3.356  1.00129.49      7
ATOM   3825  C   LYS C  38      39.859 116.493  -4.284  1.00 57.41      6
ATOM   3826  O   LYS C  38      40.545 115.538  -4.665  1.00 55.85      8
ATOM   3827  N   ARG C  39      39.819 116.895  -3.016  1.00 79.57      7
ATOM   3828  CA  ARG C  39      40.634 116.273  -1.977  1.00 80.58      6
ATOM   3829  CB  ARG C  39      40.572 114.748  -2.073  1.00131.15      6
ATOM   3830  CG  ARG C  39      39.238 114.116  -1.677  1.00133.62      6
ATOM   3831  CD  ARG C  39      38.881 114.351  -0.209  1.00136.29      6
ATOM   3832  NE  ARG C  39      37.995 113.303   0.304  1.00139.40      7
ATOM   3833  CZ  ARG C  39      37.444 113.300   1.516  1.00140.64      6
ATOM   3834  NH1 ARG C  39      37.675 114.296   2.363  1.00141.73      7
ATOM   3835  NH2 ARG C  39      36.664 112.294   1.889  1.00141.12      7
ATOM   3836  C   ARG C  39      42.039 116.774  -2.289  1.00 80.41      6
ATOM   3837  O   ARG C  39      42.501 116.635  -3.422  1.00 80.59      8
ATOM   3838  N   GLU C  40      42.714 117.368  -1.306  1.00133.71      7
ATOM   3839  CA  GLU C  40      44.045 117.921  -1.554  1.00134.19      6
ATOM   3840  CB  GLU C  40      44.014 119.450  -1.429  1.00153.39      6
ATOM   3841  CG  GLU C  40      45.378 120.116  -1.608  1.00154.96      6
ATOM   3842  CD  GLU C  40      45.289 121.626  -1.736  1.00155.83      6
ATOM   3843  OE1 GLU C  40      44.748 122.276  -0.820  1.00156.11      8
ATOM   3844  OE2 GLU C  40      45.765 122.162  -2.757  1.00156.29      8
ATOM   3845  C   GLU C  40      45.210 117.396  -0.731  1.00133.67      6
ATOM   3846  O   GLU C  40      46.237 117.014  -1.292  1.00133.47      8
ATOM   3847  N   ASN C  41      45.079 117.393   0.591  1.00 48.89      7
ATOM   3848  CA  ASN C  41      46.184 116.913   1.410  1.00 48.90      6
ATOM   3849  CB  ASN C  41      46.763 118.069   2.228  1.00130.74      6
ATOM   3850  CG  ASN C  41      47.479 119.084   1.364  1.00132.51      6
ATOM   3851  OD1 ASN C  41      48.284 118.723   0.502  1.00133.26      8
ATOM   3852  ND2 ASN C  41      47.199 120.362   1.593  1.00133.67      7
ATOM   3853  C   ASN C  41      45.946 115.713   2.328  1.00 47.57      6
ATOM   3854  O   ASN C  41      44.923 115.032   2.263  1.00 47.19      8
ATOM   3855  N   VAL C  42      46.941 115.457   3.168  1.00113.68      7
```

69

```
ATOM   3856  CA   VAL C  42      46.908 114.361   4.123  1.00113.62      6
ATOM   3857  CB   VAL C  42      45.718 114.516   5.104  1.00120.00      6
ATOM   3858  CG1  VAL C  42      45.857 113.533   6.264  1.00119.44      6
ATOM   3859  CG2  VAL C  42      45.661 115.946   5.620  1.00120.00      6
ATOM   3860  C    VAL C  42      46.834 112.990   3.443  1.00113.04      6
ATOM   3861  O    VAL C  42      46.163 112.811   2.418  1.00112.64      8
ATOM   3862  N    GLY C  43      47.554 112.037   4.028  1.00 97.34      7
ATOM   3863  CA   GLY C  43      47.580 110.680   3.526  1.00 95.90      6
ATOM   3864  C    GLY C  43      47.760 110.517   2.033  1.00 95.43      6
ATOM   3865  O    GLY C  43      48.371 111.348   1.364  1.00 95.25      8
ATOM   3866  N    ILE C  44      47.216 109.411   1.532  1.00 98.61      7
ATOM   3867  CA   ILE C  44      47.267 109.030   0.126  1.00 97.86      6
ATOM   3868  CB   ILE C  44      45.845 108.599  -0.360  1.00117.32      6
ATOM   3869  CG2  ILE C  44      45.725 108.710  -1.883  1.00118.51      6
ATOM   3870  CG1  ILE C  44      45.567 107.156   0.076  1.00117.91      6
ATOM   3871  CD1  ILE C  44      45.689 106.909   1.559  1.00119.46      6
ATOM   3872  C    ILE C  44      47.842 110.086  -0.815  1.00 96.77      6
ATOM   3873  O    ILE C  44      48.942 109.927  -1.344  1.00 96.62      8
ATOM   3874  N    GLN C  45      47.098 111.168  -1.001  1.00 64.52      7
ATOM   3875  CA   GLN C  45      47.503 112.235  -1.899  1.00 63.24      6
ATOM   3876  CB   GLN C  45      46.306 113.144  -2.178  1.00134.09      6
ATOM   3877  CG   GLN C  45      46.562 114.199  -3.226  1.00134.29      6
ATOM   3878  CD   GLN C  45      45.286 114.852  -3.692  1.00135.13      6
ATOM   3879  OE1  GLN C  45      44.484 115.316  -2.883  1.00136.75      8
ATOM   3880  NE2  GLN C  45      45.090 114.896  -5.003  1.00135.00      7
ATOM   3881  C    GLN C  45      48.677 113.053  -1.386  1.00 61.15      6
ATOM   3882  O    GLN C  45      49.646 113.280  -2.110  1.00 60.47      8
ATOM   3883  N    ALA C  46      48.585 113.510  -0.143  1.00 62.10      7
ATOM   3884  CA   ALA C  46      49.661 114.294   0.445  1.00 60.83      6
ATOM   3885  CB   ALA C  46      49.509 114.356   1.955  1.00131.32      6
ATOM   3886  C    ALA C  46      50.954 113.594   0.080  1.00 59.10      6
ATOM   3887  O    ALA C  46      51.696 114.060  -0.776  1.00 58.97      8
ATOM   3888  N    ALA C  47      51.191 112.452   0.716  1.00 76.48      7
ATOM   3889  CA   ALA C  47      52.387 111.657   0.467  1.00 75.00      6
ATOM   3890  CB   ALA C  47      52.158 110.221   0.947  1.00 76.20      6
ATOM   3891  C    ALA C  47      52.780 111.674  -1.019  1.00 74.00      6
ATOM   3892  O    ALA C  47      53.961 111.600  -1.368  1.00 74.34      8
ATOM   3893  N    PHE C  48      51.787 111.767  -1.895  1.00 40.16      7
ATOM   3894  CA   PHE C  48      52.065 111.811  -3.313  1.00 38.41      6
ATOM   3895  CB   PHE C  48      50.795 111.553  -4.122  1.00 63.46      6
ATOM   3896  CG   PHE C  48      50.569 110.105  -4.456  1.00 63.24      6
ATOM   3897  CD1  PHE C  48      51.206 109.099  -3.735  1.00 62.54      6
ATOM   3898  CD2  PHE C  48      49.701 109.747  -5.481  1.00 63.01      6
ATOM   3899  CE1  PHE C  48      50.983 107.766  -4.031  1.00 61.74      6
ATOM   3900  CE2  PHE C  48      49.470 108.414  -5.780  1.00 61.69      6
ATOM   3901  CZ   PHE C  48      50.111 107.422  -5.056  1.00 61.01      6
ATOM   3902  C    PHE C  48      52.612 113.185  -3.618  1.00 38.13      6
ATOM   3903  O    PHE C  48      53.794 113.320  -3.942  1.00 39.04      8
ATOM   3904  N    LYS C  49      51.756 114.202  -3.500  1.00 31.04      7
ATOM   3905  CA   LYS C  49      52.164 115.574  -3.760  1.00 29.55      6
ATOM   3906  CB   LYS C  49      51.042 116.541  -3.420  1.00 43.45      6
ATOM   3907  CG   LYS C  49      49.942 116.566  -4.457  1.00 43.78      6
ATOM   3908  CD   LYS C  49      48.890 117.607  -4.106  1.00 44.92      6
ATOM   3909  CE   LYS C  49      47.993 117.952  -5.295  1.00 45.14      6
ATOM   3910  NZ   LYS C  49      47.157 119.174  -5.031  1.00 45.76      7
ATOM   3911  C    LYS C  49      53.383 115.848  -2.912  1.00 29.35      6
```

70

```
ATOM   3912  O    LYS C  49      54.371 116.390  -3.391  1.00 28.88      8
ATOM   3913  N    GLU C  50      53.325 115.451  -1.652  1.00 18.42      7
ATOM   3914  CA   GLU C  50      54.461 115.636  -0.768  1.00 20.92      6
ATOM   3915  CB   GLU C  50      54.285 114.825   0.515  1.00124.61      6
ATOM   3916  CG   GLU C  50      53.448 115.494   1.583  1.00127.58      6
ATOM   3917  CD   GLU C  50      53.419 114.679   2.851  1.00129.37      6
ATOM   3918  OE1  GLU C  50      54.507 114.257   3.299  1.00128.96      8
ATOM   3919  OE2  GLU C  50      52.315 114.463   3.397  1.00132.46      8
ATOM   3920  C    GLU C  50      55.743 115.194  -1.467  1.00 21.08      6
ATOM   3921  O    GLU C  50      56.631 116.000  -1.719  1.00 22.13      8
ATOM   3922  N    THR C  51      55.852 113.911  -1.777  1.00 71.11      7
ATOM   3923  CA   THR C  51      57.046 113.427  -2.442  1.00 72.37      6
ATOM   3924  CB   THR C  51      56.886 111.980  -2.832  1.00 31.71      6
ATOM   3925  OG1  THR C  51      56.273 111.262  -1.759  1.00 30.28      8
ATOM   3926  CG2  THR C  51      58.230 111.386  -3.103  1.00 31.58      6
ATOM   3927  C    THR C  51      57.249 114.262  -3.697  1.00 74.48      6
ATOM   3928  O    THR C  51      56.557 114.071  -4.701  1.00 74.18      8
ATOM   3929  N    PHE C  52      58.194 115.195  -3.641  1.00207.23      7
ATOM   3930  CA   PHE C  52      58.437 116.065  -4.781  1.00208.87      6
ATOM   3931  CB   PHE C  52      59.544 117.102  -4.471  1.00106.21      6
ATOM   3932  CG   PHE C  52      60.822 116.525  -3.893  1.00106.76      6
ATOM   3933  CD1  PHE C  52      61.419 115.387  -4.434  1.00106.34      6
ATOM   3934  CD2  PHE C  52      61.462 117.171  -2.836  1.00106.63      6
ATOM   3935  CE1  PHE C  52      62.635 114.907  -3.930  1.00106.88      6
ATOM   3936  CE2  PHE C  52      62.675 116.701  -2.327  1.00106.95      6
ATOM   3937  CZ   PHE C  52      63.262 115.568  -2.874  1.00107.20      6
ATOM   3938  C    PHE C  52      58.752 115.329  -6.079  1.00208.87      6
ATOM   3939  O    PHE C  52      59.429 114.299  -6.075  1.00208.87      8
ATOM   3940  N    PRO C  53      58.227 115.837  -7.209  1.00122.42      7
ATOM   3941  CD   PRO C  53      57.338 117.005  -7.345  1.00 39.07      6
ATOM   3942  CA   PRO C  53      58.467 115.224  -8.514  1.00122.58      6
ATOM   3943  CB   PRO C  53      58.031 116.313  -9.478  1.00 38.23      6
ATOM   3944  CG   PRO C  53      56.863 116.884  -8.778  1.00 38.12      6
ATOM   3945  C    PRO C  53      59.947 114.921  -8.634  1.00123.24      6
ATOM   3946  O    PRO C  53      60.766 115.837  -8.679  1.00124.61      8
ATOM   3947  N    ILE C  54      60.293 113.641  -8.676  1.00 59.25      7
ATOM   3948  CA   ILE C  54      61.691 113.260  -8.772  1.00 59.00      6
ATOM   3949  CB   ILE C  54      61.854 111.761  -9.153  1.00 38.24      6
ATOM   3950  CG2  ILE C  54      60.999 111.441 -10.361  1.00 38.42      6
ATOM   3951  CG1  ILE C  54      63.335 111.442  -9.418  1.00 38.13      6
ATOM   3952  CD1  ILE C  54      64.270 111.795  -8.272  1.00 35.57      6
ATOM   3953  C    ILE C  54      62.472 114.127  -9.753  1.00 59.79      6
ATOM   3954  O    ILE C  54      62.206 114.152 -10.955  1.00 59.16      8
ATOM   3955  N    GLU C  55      63.420 114.871  -9.199  1.00 61.34      7
ATOM   3956  CA   GLU C  55      64.285 115.720  -9.988  1.00 63.19      6
ATOM   3957  CB   GLU C  55      65.047 116.698  -9.085  1.00 88.10      6
ATOM   3958  CG   GLU C  55      64.181 117.597  -8.191  1.00 89.00      6
ATOM   3959  CD   GLU C  55      63.485 116.848  -7.068  1.00 89.60      6
ATOM   3960  OE1  GLU C  55      64.139 116.016  -6.408  1.00 90.86      8
ATOM   3961  OE2  GLU C  55      62.288 117.106  -6.833  1.00 88.74      8
ATOM   3962  C    GLU C  55      65.256 114.720 -10.603  1.00 64.85      6
ATOM   3963  O    GLU C  55      64.879 113.577 -10.856  1.00 65.18      8
ATOM   3964  N    GLU C  56      66.501 115.128 -10.824  1.00154.58      7
ATOM   3965  CA   GLU C  56      67.494 114.226 -11.397  1.00157.05      6
ATOM   3966  CB   GLU C  56      67.211 113.985 -12.881  1.00124.00      6
ATOM   3967  CG   GLU C  56      67.245 115.244 -13.718  1.00125.79      6
```

71

```
ATOM   3968  CD   GLU C  56       66.159 116.225 -13.323  1.00127.18      6
ATOM   3969  OE1  GLU C  56       64.979 115.979 -13.655  1.00127.61      8
ATOM   3970  OE2  GLU C  56       66.484 117.239 -12.667  1.00127.56      8
ATOM   3971  C    GLU C  56       68.891 114.795 -11.240  1.00158.22      6
ATOM   3972  O    GLU C  56       69.172 115.529 -10.294  1.00158.76      8
ATOM   3973  N    GLY C  57       69.765 114.445 -12.176  1.00103.07      7
ATOM   3974  CA   GLY C  57       71.129 114.932 -12.130  1.00104.55      6
ATOM   3975  C    GLY C  57       71.238 116.354 -12.641  1.00105.62      6
ATOM   3976  O    GLY C  57       70.732 116.685 -13.720  1.00106.41      8
ATOM   3977  N    ALA C  58       71.898 117.202 -11.860  1.00132.92      7
ATOM   3978  CA   ALA C  58       72.075 118.592 -12.240  1.00133.77      6
ATOM   3979  CB   ALA C  58       72.757 118.657 -13.590  1.00 19.77      6
ATOM   3980  C    ALA C  58       70.722 119.303 -12.289  1.00134.75      6
ATOM   3981  O    ALA C  58       69.912 119.053 -13.187  1.00134.98      8
ATOM   3982  N    LYS C  59       70.492 120.188 -11.318  1.00156.20      7
ATOM   3983  CA   LYS C  59       69.246 120.950 -11.200  1.00157.09      6
ATOM   3984  CB   LYS C  59       69.438 122.137 -10.246  1.00107.35      6
ATOM   3985  CG   LYS C  59       69.663 121.752  -8.784  1.00107.22      6
ATOM   3986  CD   LYS C  59       69.714 122.989  -7.877  1.00106.92      6
ATOM   3987  CE   LYS C  59       69.795 122.617  -6.393  1.00106.52      6
ATOM   3988  NZ   LYS C  59       69.818 123.818  -5.509  1.00105.42      7
ATOM   3989  C    LYS C  59       68.684 121.463 -12.524  1.00157.61      6
ATOM   3990  O    LYS C  59       69.074 122.530 -13.006  1.00157.43      8
ATOM   3991  N    GLY C  60       67.752 120.701 -13.094  1.00129.14      7
ATOM   3992  CA   GLY C  60       67.137 121.081 -14.353  1.00129.03      6
ATOM   3993  C    GLY C  60       68.148 121.434 -15.429  1.00129.06      6
ATOM   3994  O    GLY C  60       68.306 122.606 -15.779  1.00129.14      8
ATOM   3995  N    LYS C  61       68.832 120.419 -15.952  1.00189.07      7
ATOM   3996  CA   LYS C  61       69.837 120.612 -16.997  1.00188.42      6
ATOM   3997  CB   LYS C  61       71.193 120.067 -16.531  1.00 95.41      6
ATOM   3998  CG   LYS C  61       71.836 120.846 -15.397  1.00 95.06      6
ATOM   3999  CD   LYS C  61       72.555 122.091 -15.882  1.00 94.98      6
ATOM   4000  CE   LYS C  61       73.320 122.758 -14.738  1.00 94.81      6
ATOM   4001  NZ   LYS C  61       74.117 123.930 -15.204  1.00 94.67      7
ATOM   4002  C    LYS C  61       69.433 119.927 -18.304  1.00187.52      6
ATOM   4003  O    LYS C  61       69.906 120.301 -19.380  1.00187.21      8
ATOM   4004  N    GLY C  62       68.561 118.927 -18.207  1.00173.41      7
ATOM   4005  CA   GLY C  62       68.121 118.212 -19.394  1.00172.55      6
ATOM   4006  C    GLY C  62       66.715 117.645 -19.301  1.00171.94      6
ATOM   4007  O    GLY C  62       65.782 118.334 -18.882  1.00172.35      8
ATOM   4008  N    GLY C  63       66.562 116.382 -19.692  1.00106.71      7
ATOM   4009  CA   GLY C  63       65.255 115.752 -19.651  1.00104.35      6
ATOM   4010  C    GLY C  63       65.002 114.888 -18.430  1.00102.47      6
ATOM   4011  O    GLY C  63       65.893 114.685 -17.604  1.00102.37      8
ATOM   4012  N    LEU C  64       63.769 114.394 -18.330  1.00153.39      7
ATOM   4013  CA   LEU C  64       63.305 113.529 -17.240  1.00151.74      6
ATOM   4014  CB   LEU C  64       64.362 112.473 -16.911  1.00130.45      6
ATOM   4015  CG   LEU C  64       64.731 111.550 -18.072  1.00129.19      6
ATOM   4016  CD1  LEU C  64       65.827 110.609 -17.627  1.00128.90      6
ATOM   4017  CD2  LEU C  64       63.509 110.775 -18.533  1.00129.76      6
ATOM   4018  C    LEU C  64       62.891 114.261 -15.965  1.00150.41      6
ATOM   4019  O    LEU C  64       63.715 114.536 -15.097  1.00150.11      8
ATOM   4020  N    VAL C  65       61.599 114.564 -15.864  1.00 94.25      7
ATOM   4021  CA   VAL C  65       61.043 115.254 -14.703  1.00 93.03      6
ATOM   4022  CB   VAL C  65       60.210 116.477 -15.131  1.00 49.35      6
ATOM   4023  CG1  VAL C  65       59.347 116.972 -13.990  1.00 48.78      6
```

72

```
ATOM   4024  CG2 VAL C  65       61.131 117.571 -15.572  1.00 49.43       6
ATOM   4025  C   VAL C  65       60.142 114.304 -13.925  1.00 93.26       6
ATOM   4026  O   VAL C  65       60.385 114.015 -12.747  1.00 93.73       8
ATOM   4027  N   LEU C  66       59.099 113.828 -14.601  1.00 62.83       7
ATOM   4028  CA  LEU C  66       58.137 112.902 -14.017  1.00 60.91       6
ATOM   4029  CB  LEU C  66       58.833 111.620 -13.543  1.00 55.02       6
ATOM   4030  CG  LEU C  66       57.939 110.554 -12.900  1.00 54.34       6
ATOM   4031  CD1 LEU C  66       56.776 110.172 -13.817  1.00 53.57       6
ATOM   4032  CD2 LEU C  66       58.798 109.350 -12.578  1.00 54.77       6
ATOM   4033  C   LEU C  66       57.368 113.504 -12.867  1.00 59.76       6
ATOM   4034  O   LEU C  66       57.903 113.717 -11.780  1.00 58.86       8
ATOM   4035  N   ASP C  67       56.101 113.786 -13.125  1.00 83.71       7
ATOM   4036  CA  ASP C  67       55.234 114.338 -12.111  1.00 84.15       6
ATOM   4037  CB  ASP C  67       54.619 115.662 -12.588  1.00162.72       6
ATOM   4038  CG  ASP C  67       54.463 115.733 -14.100  1.00164.62       6
ATOM   4039  OD1 ASP C  67       55.465 115.526 -14.817  1.00164.61       8
ATOM   4040  OD2 ASP C  67       53.339 116.011 -14.570  1.00166.53       8
ATOM   4041  C   ASP C  67       54.164 113.299 -11.820  1.00 83.51       6
ATOM   4042  O   ASP C  67       54.057 112.295 -12.531  1.00 83.41       8
ATOM   4043  N   PHE C  68       53.390 113.526 -10.765  1.00 28.71       7
ATOM   4044  CA  PHE C  68       52.343 112.596 -10.385  1.00 28.07       6
ATOM   4045  CB  PHE C  68       52.508 112.183  -8.912  1.00 91.06       6
ATOM   4046  CG  PHE C  68       53.892 111.617  -8.571  1.00 92.16       6
ATOM   4047  CD1 PHE C  68       55.010 112.452  -8.483  1.00 92.24       6
ATOM   4048  CD2 PHE C  68       54.069 110.251  -8.321  1.00 91.63       6
ATOM   4049  CE1 PHE C  68       56.269 111.932  -8.150  1.00 91.63       6
ATOM   4050  CE2 PHE C  68       55.327 109.731  -7.989  1.00 90.24       6
ATOM   4051  CZ  PHE C  68       56.422 110.571  -7.904  1.00 90.55       6
ATOM   4052  C   PHE C  68       50.983 113.236 -10.621  1.00 27.88       6
ATOM   4053  O   PHE C  68       50.844 114.454 -10.543  1.00 26.24       8
ATOM   4054  N   LEU C  69       49.993 112.405 -10.941  1.00131.88       7
ATOM   4055  CA  LEU C  69       48.627 112.862 -11.193  1.00132.72       6
ATOM   4056  CB  LEU C  69       48.188 112.515 -12.617  1.00 63.15       6
ATOM   4057  CG  LEU C  69       49.022 112.904 -13.834  1.00 63.27       6
ATOM   4058  CD1 LEU C  69       48.220 112.557 -15.096  1.00 62.57       6
ATOM   4059  CD2 LEU C  69       49.365 114.391 -13.795  1.00 63.36       6
ATOM   4060  C   LEU C  69       47.668 112.176 -10.221  1.00133.30       6
ATOM   4061  O   LEU C  69       47.779 112.332  -9.002  1.00134.07       8
ATOM   4062  N   GLU C  70       46.730 111.410 -10.775  1.00 73.64       7
ATOM   4063  CA  GLU C  70       45.758 110.691  -9.966  1.00 74.13       6
ATOM   4064  CB  GLU C  70       44.628 110.115 -10.825  1.00 82.92       6
ATOM   4065  CG  GLU C  70       44.808 110.252 -12.315  1.00 84.69       6
ATOM   4066  CD  GLU C  70       44.267 111.559 -12.825  1.00 85.45       6
ATOM   4067  OE1 GLU C  70       44.775 112.616 -12.402  1.00 85.54       8
ATOM   4068  OE2 GLU C  70       43.328 111.525 -13.643  1.00 86.32       8
ATOM   4069  C   GLU C  70       46.387 109.546  -9.192  1.00 73.87       6
ATOM   4070  O   GLU C  70       47.593 109.341  -9.202  1.00 74.29       8
ATOM   4071  N   TYR C  71       45.525 108.794  -8.534  1.00 41.60       7
ATOM   4072  CA  TYR C  71       45.908 107.657  -7.720  1.00 41.39       6
ATOM   4073  CB  TYR C  71       46.016 108.097  -6.254  1.00 96.85       6
ATOM   4074  CG  TYR C  71       44.711 108.649  -5.736  1.00 99.37       6
ATOM   4075  CD1 TYR C  71       43.794 107.826  -5.096  1.00100.19       6
ATOM   4076  CE1 TYR C  71       42.526 108.288  -4.753  1.00101.02       6
ATOM   4077  CD2 TYR C  71       44.332 109.963  -6.011  1.00100.76       6
ATOM   4078  CE2 TYR C  71       43.061 110.437  -5.672  1.00101.32       6
ATOM   4079  CZ  TYR C  71       42.160 109.592  -5.045  1.00101.36       6
```

73

```
ATOM   4080  OH   TYR C   71      40.894 110.046   -4.732  1.00100.65      8
ATOM   4081  C    TYR C   71      44.721 106.725   -7.905  1.00 40.46      6
ATOM   4082  O    TYR C   71      43.591 107.193   -8.038  1.00 39.16      8
ATOM   4083  N    ARG C   72      44.944 105.419   -7.911  1.00 55.34      7
ATOM   4084  CA   ARG C   72      43.812 104.538   -8.107  1.00 55.85      6
ATOM   4085  CB   ARG C   72      43.737 104.137   -9.585  1.00 97.22      6
ATOM   4086  CG   ARG C   72      42.499 103.325   -9.949  1.00 99.67      6
ATOM   4087  CD   ARG C   72      42.447 102.996  -11.431  1.00100.61      6
ATOM   4088  NE   ARG C   72      41.858 101.682  -11.663  1.00102.71      7
ATOM   4089  CZ   ARG C   72      41.921 101.022  -12.815  1.00104.14      6
ATOM   4090  NH1  ARG C   72      42.548 101.551  -13.856  1.00103.10      7
ATOM   4091  NH2  ARG C   72      41.366  99.820  -12.921  1.00105.69      7
ATOM   4092  C    ARG C   72      43.736 103.295   -7.230  1.00 55.38      6
ATOM   4093  O    ARG C   72      44.406 102.293   -7.487  1.00 55.48      8
ATOM   4094  N    ILE C   73      42.924 103.368   -6.184  1.00 45.89      7
ATOM   4095  CA   ILE C   73      42.716 102.212   -5.321  1.00 46.35      6
ATOM   4096  CB   ILE C   73      42.063 102.615   -3.953  1.00 79.44      6
ATOM   4097  CG2  ILE C   73      41.576 101.386   -3.206  1.00 79.78      6
ATOM   4098  CG1  ILE C   73      43.061 103.371   -3.082  1.00 79.96      6
ATOM   4099  CD1  ILE C   73      43.415 104.721   -3.606  1.00 82.19      6
ATOM   4100  C    ILE C   73      41.683 101.486   -6.171  1.00 45.72      6
ATOM   4101  O    ILE C   73      41.190 102.072   -7.124  1.00 45.98      8
ATOM   4102  N    GLY C   74      41.347 100.238   -5.877  1.00 59.70      7
ATOM   4103  CA   GLY C   74      40.325  99.618   -6.699  1.00 59.89      6
ATOM   4104  C    GLY C   74      40.210  98.115   -6.685  1.00 59.31      6
ATOM   4105  O    GLY C   74      40.582  97.464   -5.715  1.00 59.22      8
ATOM   4106  N    ASP C   75      39.676  97.580   -7.780  1.00 75.15      7
ATOM   4107  CA   ASP C   75      39.494  96.144   -7.966  1.00 74.49      6
ATOM   4108  CB   ASP C   75      39.890  95.732   -9.426  1.00 60.41      6
ATOM   4109  CG   ASP C   75      40.785  96.777  -10.166  1.00 61.12      6
ATOM   4110  OD1  ASP C   75      40.351  97.924  -10.406  1.00 61.97      8
ATOM   4111  OD2  ASP C   75      41.926  96.433  -10.540  1.00 60.97      8
ATOM   4112  C    ASP C   75      40.230  95.254   -6.930  1.00 73.41      6
ATOM   4113  O    ASP C   75      41.259  94.642   -7.233  1.00 73.61      8
ATOM   4114  N    PRO C   76      39.690  95.157   -5.697  1.00 53.20      7
ATOM   4115  CD   PRO C   76      38.342  95.596   -5.308  1.00 76.69      6
ATOM   4116  CA   PRO C   76      40.293  94.349   -4.626  1.00 52.08      6
ATOM   4117  CB   PRO C   76      39.281  94.456   -3.495  1.00 75.29      6
ATOM   4118  CG   PRO C   76      38.002  94.598   -4.222  1.00 76.95      6
ATOM   4119  C    PRO C   76      40.535  92.907   -5.039  1.00 50.99      6
ATOM   4120  O    PRO C   76      39.833  92.378   -5.887  1.00 52.01      8
ATOM   4121  N    PRO C   77      41.541  92.253   -4.441  1.00 43.95      7
ATOM   4122  CD   PRO C   77      42.534  92.871   -3.546  1.00100.31      6
ATOM   4123  CA   PRO C   77      41.910  90.863   -4.729  1.00 42.97      6
ATOM   4124  CB   PRO C   77      43.053  90.605   -3.752  1.00 99.15      6
ATOM   4125  CG   PRO C   77      43.722  91.936   -3.691  1.00100.25      6
ATOM   4126  C    PRO C   77      40.805  89.821   -4.615  1.00 42.68      6
ATOM   4127  O    PRO C   77      40.045  89.616   -5.559  1.00 42.66      8
ATOM   4128  N    PHE C   78      40.726  89.162   -3.460  1.00105.15      7
ATOM   4129  CA   PHE C   78      39.736  88.111   -3.235  1.00104.28      6
ATOM   4130  CB   PHE C   78      40.370  86.947   -2.479  1.00 44.72      6
ATOM   4131  CG   PHE C   78      41.528  86.341   -3.185  1.00 41.61      6
ATOM   4132  CD1  PHE C   78      42.663  87.091   -3.439  1.00 40.07      6
ATOM   4133  CD2  PHE C   78      41.479  85.023   -3.611  1.00 40.88      6
ATOM   4134  CE1  PHE C   78      43.735  86.542   -4.111  1.00 40.12      6
ATOM   4135  CE2  PHE C   78      42.544  84.456   -4.284  1.00 41.19      6
```

74

ATOM	4136	CZ	PHE	C	78	43.680	85.216	-4.537	1.00	40.97	6
ATOM	4137	C	PHE	C	78	38.513	88.571	-2.478	1.00	104.94	6
ATOM	4138	O	PHE	C	78	37.586	89.119	-3.068	1.00	106.80	8
ATOM	4139	N	SER	C	79	38.510	88.331	-1.170	1.00	30.96	7
ATOM	4140	CA	SER	C	79	37.382	88.729	-0.336	1.00	31.37	6
ATOM	4141	CB	SER	C	79	36.118	88.019	-0.803	1.00	97.02	6
ATOM	4142	OG	SER	C	79	36.158	86.651	-0.430	1.00	95.83	8
ATOM	4143	C	SER	C	79	37.556	88.437	1.145	1.00	32.21	6
ATOM	4144	O	SER	C	79	38.066	87.393	1.514	1.00	32.04	8
ATOM	4145	N	GLN	C	80	37.113	89.353	1.997	1.00	71.63	7
ATOM	4146	CA	GLN	C	80	37.202	89.121	3.429	1.00	73.84	6
ATOM	4147	CB	GLN	C	80	36.353	90.134	4.188	1.00	75.43	6
ATOM	4148	CG	GLN	C	80	36.884	91.544	4.141	1.00	75.54	6
ATOM	4149	CD	GLN	C	80	36.155	92.451	5.104	1.00	75.38	6
ATOM	4150	OE1	GLN	C	80	35.547	91.989	6.067	1.00	74.86	8
ATOM	4151	NE2	GLN	C	80	36.227	93.752	4.862	1.00	75.75	7
ATOM	4152	C	GLN	C	80	36.653	87.715	3.660	1.00	74.89	6
ATOM	4153	O	GLN	C	80	35.756	87.278	2.936	1.00	74.90	8
ATOM	4154	N	ASP	C	81	37.184	87.016	4.661	1.00	54.21	7
ATOM	4155	CA	ASP	C	81	36.764	85.645	4.961	1.00	55.86	6
ATOM	4156	CB	ASP	C	81	35.256	85.457	4.708	1.00	95.24	6
ATOM	4157	CG	ASP	C	81	34.424	85.514	5.985	1.00	96.12	6
ATOM	4158	OD1	ASP	C	81	33.181	85.604	5.875	1.00	95.54	8
ATOM	4159	OD2	ASP	C	81	35.001	85.453	7.095	1.00	96.33	8
ATOM	4160	C	ASP	C	81	37.560	84.738	4.031	1.00	56.84	6
ATOM	4161	O	ASP	C	81	38.147	83.743	4.462	1.00	57.38	8
ATOM	4162	N	GLU	C	82	37.568	85.097	2.749	1.00	54.96	7
ATOM	4163	CA	GLU	C	82	38.301	84.354	1.729	1.00	56.17	6
ATOM	4164	CB	GLU	C	82	37.992	84.933	0.347	1.00	93.25	6
ATOM	4165	CG	GLU	C	82	38.317	84.045	-0.837	1.00	95.92	6
ATOM	4166	CD	GLU	C	82	38.033	84.733	-2.169	1.00	97.60	6
ATOM	4167	OE1	GLU	C	82	37.052	85.501	-2.254	1.00	96.68	8
ATOM	4168	OE2	GLU	C	82	38.783	84.497	-3.142	1.00	99.04	8
ATOM	4169	C	GLU	C	82	39.773	84.567	2.062	1.00	56.43	6
ATOM	4170	O	GLU	C	82	40.643	83.786	1.670	1.00	56.69	8
ATOM	4171	N	CYS	C	83	40.035	85.643	2.800	1.00	46.10	7
ATOM	4172	CA	CYS	C	83	41.387	85.992	3.195	1.00	46.27	6
ATOM	4173	CB	CYS	C	83	41.488	87.491	3.473	1.00	42.68	6
ATOM	4174	SG	CYS	C	83	42.080	88.510	2.098	1.00	46.55	16
ATOM	4175	C	CYS	C	83	41.767	85.219	4.435	1.00	46.32	6
ATOM	4176	O	CYS	C	83	42.624	84.341	4.384	1.00	47.41	8
ATOM	4177	N	ARG	C	84	41.115	85.549	5.546	1.00	84.05	7
ATOM	4178	CA	ARG	C	84	41.360	84.909	6.836	1.00	84.14	6
ATOM	4179	CB	ARG	C	84	40.213	85.248	7.788	1.00	63.56	6
ATOM	4180	CG	ARG	C	84	39.841	86.730	7.773	1.00	65.71	6
ATOM	4181	CD	ARG	C	84	38.499	87.020	8.456	1.00	66.90	6
ATOM	4182	NE	ARG	C	84	38.042	88.390	8.205	1.00	67.15	7
ATOM	4183	CZ	ARG	C	84	36.914	88.897	8.684	1.00	67.18	6
ATOM	4184	NH1	ARG	C	84	36.131	88.145	9.436	1.00	67.91	7
ATOM	4185	NH2	ARG	C	84	36.581	90.153	8.425	1.00	66.18	7
ATOM	4186	C	ARG	C	84	41.471	83.395	6.668	1.00	83.47	6
ATOM	4187	O	ARG	C	84	42.113	82.704	7.458	1.00	83.60	8
ATOM	4188	N	GLU	C	85	40.839	82.892	5.616	1.00	51.89	7
ATOM	4189	CA	GLU	C	85	40.845	81.473	5.317	1.00	50.77	6
ATOM	4190	CB	GLU	C	85	39.711	81.162	4.337	1.00	110.83	6
ATOM	4191	CG	GLU	C	85	39.405	79.694	4.168	1.00	114.03	6

ATOM	4192	CD	GLU C	85	37.971	79.454	3.741	1.00116.33	6
ATOM	4193	OE1	GLU C	85	37.566	79.951	2.665	1.00117.61	8
ATOM	4194	OE2	GLU C	85	37.243	78.768	4.491	1.00118.24	8
ATOM	4195	C	GLU C	85	42.190	81.090	4.724	1.00 48.87	6
ATOM	4196	O	GLU C	85	42.891	80.238	5.268	1.00 48.42	8
ATOM	4197	N	LYS C	86	42.542	81.755	3.623	1.00 42.41	7
ATOM	4198	CA	LYS C	86	43.788	81.515	2.891	1.00 41.09	6
ATOM	4199	CB	LYS C	86	43.529	81.694	1.397	1.00 51.50	6
ATOM	4200	CG	LYS C	86	42.664	80.608	0.806	1.00 51.79	6
ATOM	4201	CD	LYS C	86	42.216	80.915	-0.609	1.00 52.63	6
ATOM	4202	CE	LYS C	86	41.368	79.761	-1.135	1.00 53.06	6
ATOM	4203	NZ	LYS C	86	40.609	80.092	-2.375	1.00 52.14	7
ATOM	4204	C	LYS C	86	44.974	82.391	3.312	1.00 40.46	6
ATOM	4205	O	LYS C	86	45.927	82.576	2.541	1.00 39.36	8
ATOM	4206	N	ASP C	87	44.912	82.909	4.541	1.00 49.99	7
ATOM	4207	CA	ASP C	87	45.959	83.770	5.094	1.00 48.35	6
ATOM	4208	CB	ASP C	87	47.226	82.961	5.387	1.00 56.86	6
ATOM	4209	CG	ASP C	87	47.079	82.066	6.599	1.00 56.33	6
ATOM	4210	OD1	ASP C	87	46.566	82.549	7.625	1.00 56.05	8
ATOM	4211	OD2	ASP C	87	47.490	80.887	6.533	1.00 57.01	8
ATOM	4212	C	ASP C	87	46.309	84.936	4.177	1.00 47.56	6
ATOM	4213	O	ASP C	87	47.477	85.287	4.018	1.00 47.08	8
ATOM	4214	N	LEU C	88	45.293	85.541	3.578	1.00 38.58	7
ATOM	4215	CA	LEU C	88	45.526	86.659	2.690	1.00 37.19	6
ATOM	4216	CB	LEU C	88	44.652	86.529	1.451	1.00 93.94	6
ATOM	4217	CG	LEU C	88	44.885	85.243	0.658	1.00 94.32	6
ATOM	4218	CD1	LEU C	88	44.093	85.334	-0.633	1.00 95.01	6
ATOM	4219	CD2	LEU C	88	46.372	85.040	0.364	1.00 94.63	6
ATOM	4220	C	LEU C	88	45.277	87.994	3.376	1.00 36.02	6
ATOM	4221	O	LEU C	88	44.302	88.161	4.098	1.00 35.88	8
ATOM	4222	N	THR C	89	46.184	88.935	3.146	1.00 29.88	7
ATOM	4223	CA	THR C	89	46.094	90.259	3.731	1.00 29.65	6
ATOM	4224	CB	THR C	89	47.479	90.955	3.737	1.00118.66	6
ATOM	4225	OG1	THR C	89	48.448	90.092	4.345	1.00120.67	8
ATOM	4226	CG2	THR C	89	47.422	92.265	4.515	1.00119.01	6
ATOM	4227	C	THR C	89	45.129	91.101	2.906	1.00 28.47	6
ATOM	4228	O	THR C	89	45.539	91.743	1.946	1.00 28.45	8
ATOM	4229	N	TYR C	90	43.852	91.089	3.281	1.00 32.04	7
ATOM	4230	CA	TYR C	90	42.807	91.852	2.595	1.00 30.45	6
ATOM	4231	CB	TYR C	90	41.619	92.044	3.536	1.00 59.69	6
ATOM	4232	CG	TYR C	90	40.472	92.807	2.931	1.00 58.99	6
ATOM	4233	CD1	TYR C	90	39.680	92.242	1.938	1.00 58.51	6
ATOM	4234	CE1	TYR C	90	38.638	92.949	1.364	1.00 58.19	6
ATOM	4235	CD2	TYR C	90	40.189	94.101	3.336	1.00 58.79	6
ATOM	4236	CE2	TYR C	90	39.152	94.813	2.769	1.00 58.09	6
ATOM	4237	CZ	TYR C	90	38.382	94.234	1.785	1.00 57.73	6
ATOM	4238	OH	TYR C	90	37.358	94.956	1.225	1.00 58.50	8
ATOM	4239	C	TYR C	90	43.308	93.218	2.149	1.00 30.34	6
ATOM	4240	O	TYR C	90	43.250	94.183	2.917	1.00 29.90	8
ATOM	4241	N	GLN C	91	43.789	93.298	0.909	1.00 80.36	7
ATOM	4242	CA	GLN C	91	44.322	94.540	0.357	1.00 80.21	6
ATOM	4243	CB	GLN C	91	45.760	94.330	-0.108	1.00 69.15	6
ATOM	4244	CG	GLN C	91	46.719	93.994	1.005	1.00 70.45	6
ATOM	4245	CD	GLN C	91	48.044	93.506	0.481	1.00 71.04	6
ATOM	4246	OE1	GLN C	91	48.086	92.670	-0.422	1.00 70.94	8
ATOM	4247	NE2	GLN C	91	49.140	94.014	1.049	1.00 71.35	7

```
ATOM   4248  C    GLN C  91      43.506  95.051  -0.812  1.00  79.27      6
ATOM   4249  O    GLN C  91      42.302  94.845  -0.875  1.00  79.86      8
ATOM   4250  N    ALA C  92      44.180  95.728  -1.734  1.00  69.38      7
ATOM   4251  CA   ALA C  92      43.550  96.274  -2.931  1.00  69.05      6
ATOM   4252  CB   ALA C  92      42.455  97.270  -2.552  1.00  13.87      6
ATOM   4253  C    ALA C  92      44.610  96.946  -3.805  1.00  68.88      6
ATOM   4254  O    ALA C  92      45.516  97.616  -3.305  1.00  68.52      8
ATOM   4255  N    PRO C  93      44.507  96.771  -5.128  1.00  48.77      7
ATOM   4256  CD   PRO C  93      43.396  96.091  -5.813  1.00 110.54      6
ATOM   4257  CA   PRO C  93      45.441  97.342  -6.100  1.00  48.32      6
ATOM   4258  CB   PRO C  93      44.984  96.721  -7.413  1.00 110.46      6
ATOM   4259  CG   PRO C  93      43.506  96.638  -7.219  1.00 111.39      6
ATOM   4260  C    PRO C  93      45.443  98.869  -6.162  1.00  47.83      6
ATOM   4261  O    PRO C  93      44.432  99.506  -6.501  1.00  48.40      8
ATOM   4262  N    LEU C  94      46.589  99.453  -5.839  1.00  48.05      7
ATOM   4263  CA   LEU C  94      46.722 100.894  -5.878  1.00  46.69      6
ATOM   4264  CB   LEU C  94      47.059 101.446  -4.485  1.00  79.69      6
ATOM   4265  CG   LEU C  94      47.462 102.932  -4.429  1.00  79.83      6
ATOM   4266  CD1  LEU C  94      46.313 103.800  -4.898  1.00  79.99      6
ATOM   4267  CD2  LEU C  94      47.854 103.318  -3.022  1.00  79.90      6
ATOM   4268  C    LEU C  94      47.796 101.337  -6.859  1.00  45.26      6
ATOM   4269  O    LEU C  94      48.969 101.386  -6.503  1.00  44.54      8
ATOM   4270  N    TYR C  95      47.416 101.644  -8.096  1.00  34.68      7
ATOM   4271  CA   TYR C  95      48.411 102.135  -9.042  1.00  34.95      6
ATOM   4272  CB   TYR C  95      48.266 101.458 -10.425  1.00  51.57      6
ATOM   4273  CG   TYR C  95      47.026 100.607 -10.637  1.00  52.57      6
ATOM   4274  CD1  TYR C  95      45.768 101.190 -10.768  1.00  53.23      6
ATOM   4275  CE1  TYR C  95      44.624 100.414 -10.987  1.00  52.69      6
ATOM   4276  CD2  TYR C  95      47.118  99.214 -10.726  1.00  53.25      6
ATOM   4277  CE2  TYR C  95      45.975  98.418 -10.939  1.00  53.54      6
ATOM   4278  CZ   TYR C  95      44.725  99.030 -11.069  1.00  52.95      6
ATOM   4279  OH   TYR C  95      43.579  98.269 -11.273  1.00  53.39      8
ATOM   4280  C    TYR C  95      48.287 103.675  -9.148  1.00  34.90      6
ATOM   4281  O    TYR C  95      47.259 104.244  -8.759  1.00  33.96      8
ATOM   4282  N    ALA C  96      49.333 104.342  -9.647  1.00  29.90      7
ATOM   4283  CA   ALA C  96      49.324 105.802  -9.780  1.00  31.71      6
ATOM   4284  CB   ALA C  96      50.085 106.414  -8.621  1.00 108.85      6
ATOM   4285  C    ALA C  96      49.881 106.341 -11.109  1.00  33.12      6
ATOM   4286  O    ALA C  96      51.021 106.065 -11.468  1.00  33.20      8
ATOM   4287  N    ARG C  97      49.077 107.144 -11.807  1.00  56.27      7
ATOM   4288  CA   ARG C  97      49.432 107.744 -13.108  1.00  57.36      6
ATOM   4289  CB   ARG C  97      48.184 108.368 -13.735  1.00  69.99      6
ATOM   4290  CG   ARG C  97      46.984 107.450 -13.842  1.00  71.50      6
ATOM   4291  CD   ARG C  97      45.935 108.071 -14.752  1.00  72.07      6
ATOM   4292  NE   ARG C  97      46.567 108.672 -15.922  1.00  73.73      7
ATOM   4293  CZ   ARG C  97      45.930 108.991 -17.041  1.00  74.74      6
ATOM   4294  NH1  ARG C  97      44.629 108.762 -17.151  1.00  75.60      7
ATOM   4295  NH2  ARG C  97      46.596 109.540 -18.049  1.00  74.96      7
ATOM   4296  C    ARG C  97      50.528 108.823 -13.116  1.00  57.68      6
ATOM   4297  O    ARG C  97      50.278 109.958 -12.710  1.00  56.82      8
ATOM   4298  N    LEU C  98      51.716 108.495 -13.618  1.00 102.03      7
ATOM   4299  CA   LEU C  98      52.818 109.467 -13.668  1.00 103.88      6
ATOM   4300  CB   LEU C  98      54.054 108.888 -12.963  1.00  55.34      6
ATOM   4301  CG   LEU C  98      53.766 107.917 -11.803  1.00  55.72      6
ATOM   4302  CD1  LEU C  98      55.067 107.471 -11.165  1.00  56.45      6
ATOM   4303  CD2  LEU C  98      52.866 108.572 -10.770  1.00  54.94      6
```

77

```
ATOM   4304  C    LEU C  98      53.151 109.833 -15.125  1.00104.43      6
ATOM   4305  O    LEU C  98      52.603 109.236 -16.050  1.00105.22      8
ATOM   4306  N    GLN C  99      54.034 110.810 -15.332  1.00 65.41      7
ATOM   4307  CA   GLN C  99      54.407 111.243 -16.688  1.00 65.55      6
ATOM   4308  CB   GLN C  99      53.305 112.132 -17.289  1.00 54.10      6
ATOM   4309  CG   GLN C  99      52.742 113.191 -16.329  1.00 54.45      6
ATOM   4310  CD   GLN C  99      51.745 114.173 -16.975  1.00 54.22      6
ATOM   4311  OE1  GLN C  99      50.946 113.799 -17.836  1.00 53.31      8
ATOM   4312  NE2  GLN C  99      51.781 115.432 -16.530  1.00 53.03      7
ATOM   4313  C    GLN C  99      55.724 112.009 -16.719  1.00 66.35      6
ATOM   4314  O    GLN C  99      55.746 113.204 -16.432  1.00 67.40      8
ATOM   4315  N    LEU C 100      56.815 111.337 -17.083  1.00 57.89      7
ATOM   4316  CA   LEU C 100      58.134 111.988 -17.121  1.00 58.25      6
ATOM   4317  CB   LEU C 100      59.253 110.949 -17.182  1.00 58.65      6
ATOM   4318  CG   LEU C 100      58.824 109.541 -17.579  1.00 59.06      6
ATOM   4319  CD1  LEU C 100      58.250 109.558 -18.983  1.00 59.44      6
ATOM   4320  CD2  LEU C 100      60.013 108.607 -17.468  1.00 58.33      6
ATOM   4321  C    LEU C 100      58.312 112.984 -18.247  1.00 59.20      6
ATOM   4322  O    LEU C 100      57.903 112.741 -19.382  1.00 59.43      8
ATOM   4323  N    ILE C 101      58.931 114.113 -17.920  1.00 72.44      7
ATOM   4324  CA   ILE C 101      59.157 115.174 -18.891  1.00 74.12      6
ATOM   4325  CB   ILE C 101      58.997 116.566 -18.227  1.00 59.88      6
ATOM   4326  CG2  ILE C 101      58.873 117.647 -19.292  1.00 59.71      6
ATOM   4327  CG1  ILE C 101      57.758 116.584 -17.326  1.00 60.33      6
ATOM   4328  CD1  ILE C 101      56.461 116.261 -18.039  1.00 61.69      6
ATOM   4329  C    ILE C 101      60.563 115.050 -19.479  1.00 75.54      6
ATOM   4330  O    ILE C 101      61.377 114.275 -18.986  1.00 75.14      8
ATOM   4331  N    HIS C 102      60.835 115.810 -20.538  1.00 74.04      7
ATOM   4332  CA   HIS C 102      62.136 115.798 -21.202  1.00 75.31      6
ATOM   4333  CB   HIS C 102      62.010 115.223 -22.619  1.00 83.57      6
ATOM   4334  CG   HIS C 102      61.650 113.771 -22.670  1.00 84.63      6
ATOM   4335  CD2  HIS C 102      60.613 113.131 -23.260  1.00 84.82      6
ATOM   4336  ND1  HIS C 102      62.438 112.788 -22.112  1.00 85.38      7
ATOM   4337  CE1  HIS C 102      61.903 111.604 -22.358  1.00 85.82      6
ATOM   4338  NE2  HIS C 102      60.795 111.784 -23.054  1.00 85.53      7
ATOM   4339  C    HIS C 102      62.722 117.210 -21.321  1.00 75.87      6
ATOM   4340  O    HIS C 102      62.562 118.066 -20.441  1.00 75.97      8
ATOM   4341  N    LYS C 103      63.403 117.417 -22.443  1.00107.67      7
ATOM   4342  CA   LYS C 103      64.040 118.676 -22.813  1.00108.49      6
ATOM   4343  CB   LYS C 103      65.306 118.919 -21.983  1.00112.21      6
ATOM   4344  CG   LYS C 103      65.185 120.085 -21.008  1.00113.26      6
ATOM   4345  CD   LYS C 103      64.739 121.354 -21.723  1.00113.90      6
ATOM   4346  CE   LYS C 103      64.448 122.480 -20.744  1.00114.86      6
ATOM   4347  NZ   LYS C 103      63.685 123.587 -21.394  1.00115.30      7
ATOM   4348  C    LYS C 103      64.404 118.508 -24.286  1.00108.56      6
ATOM   4349  O    LYS C 103      65.258 119.216 -24.830  1.00108.10      8
ATOM   4350  N    ASP C 104      63.727 117.548 -24.911  1.00 51.37      7
ATOM   4351  CA   ASP C 104      63.928 117.196 -26.307  1.00 51.13      6
ATOM   4352  CB   ASP C 104      65.022 116.117 -26.414  1.00 80.96      6
ATOM   4353  CG   ASP C 104      64.948 115.070 -25.287  1.00 81.71      6
ATOM   4354  OD1  ASP C 104      64.879 115.445 -24.095  1.00 81.16      8
ATOM   4355  OD2  ASP C 104      64.979 113.858 -25.586  1.00 83.61      8
ATOM   4356  C    ASP C 104      62.600 116.702 -26.880  1.00 51.12      6
ATOM   4357  O    ASP C 104      62.547 115.702 -27.605  1.00 50.09      8
ATOM   4358  N    THR C 105      61.532 117.422 -26.534  1.00153.67      7
ATOM   4359  CA   THR C 105      60.174 117.115 -26.984  1.00156.13      6
```

```
ATOM   4360  CB   THR C 105      60.056 117.234 -28.533  1.00130.99      6
ATOM   4361  OG1  THR C 105      60.166 118.612 -28.915  1.00131.67      8
ATOM   4362  CG2  THR C 105      58.714 116.681 -29.027  1.00130.54      6
ATOM   4363  C    THR C 105      59.687 115.734 -26.547  1.00157.07      6
ATOM   4364  O    THR C 105      60.143 114.707 -27.063  1.00157.74      8
ATOM   4365  N    GLY C 106      58.753 115.718 -25.595  1.00118.28      7
ATOM   4366  CA   GLY C 106      58.215 114.459 -25.111  1.00117.30      6
ATOM   4367  C    GLY C 106      57.591 114.516 -23.730  1.00116.71      6
ATOM   4368  O    GLY C 106      58.187 115.024 -22.778  1.00116.63      8
ATOM   4369  N    LEU C 107      56.381 113.978 -23.628  1.00 62.99      7
ATOM   4370  CA   LEU C 107      55.641 113.940 -22.373  1.00 62.42      6
ATOM   4371  CB   LEU C 107      54.618 115.078 -22.345  1.00116.78      6
ATOM   4372  CG   LEU C 107      55.122 116.457 -22.787  1.00116.42      6
ATOM   4373  CD1  LEU C 107      53.989 117.459 -22.664  1.00116.42      6
ATOM   4374  CD2  LEU C 107      56.303 116.890 -21.940  1.00116.89      6
ATOM   4375  C    LEU C 107      54.931 112.583 -22.236  1.00 62.45      6
ATOM   4376  O    LEU C 107      53.711 112.475 -22.414  1.00 61.96      8
ATOM   4377  N    ILE C 108      55.717 111.557 -21.919  1.00 85.98      7
ATOM   4378  CA   ILE C 108      55.233 110.187 -21.759  1.00 86.51      6
ATOM   4379  CB   ILE C 108      56.420 109.207 -21.687  1.00 53.58      6
ATOM   4380  CG2  ILE C 108      55.898 107.772 -21.651  1.00 53.89      6
ATOM   4381  CG1  ILE C 108      57.363 109.437 -22.882  1.00 53.03      6
ATOM   4382  CD1  ILE C 108      58.780 108.849 -22.723  1.00 51.80      6
ATOM   4383  C    ILE C 108      54.393 110.024 -20.493  1.00 87.01      6
ATOM   4384  O    ILE C 108      54.701 110.625 -19.460  1.00 86.91      8
ATOM   4385  N    LYS C 109      53.347 109.200 -20.576  1.00 85.47      7
ATOM   4386  CA   LYS C 109      52.447 108.964 -19.443  1.00 86.15      6
ATOM   4387  CB   LYS C 109      51.192 109.833 -19.558  1.00111.00      6
ATOM   4388  CG   LYS C 109      51.422 111.320 -19.741  1.00112.77      6
ATOM   4389  CD   LYS C 109      50.091 112.067 -19.869  1.00112.61      6
ATOM   4390  CE   LYS C 109      49.182 111.816 -18.664  1.00113.05      6
ATOM   4391  NZ   LYS C 109      47.901 112.576 -18.738  1.00112.68      7
ATOM   4392  C    LYS C 109      51.967 107.523 -19.336  1.00 86.43      6
ATOM   4393  O    LYS C 109      50.963 107.180 -19.959  1.00 86.97      8
ATOM   4394  N    GLU C 110      52.649 106.684 -18.555  1.00106.12      7
ATOM   4395  CA   GLU C 110      52.199 105.300 -18.396  1.00106.53      6
ATOM   4396  CB   GLU C 110      53.252 104.422 -17.717  1.00127.12      6
ATOM   4397  CG   GLU C 110      54.279 103.813 -18.656  1.00129.05      6
ATOM   4398  CD   GLU C 110      53.646 103.074 -19.818  1.00130.82      6
ATOM   4399  OE1  GLU C 110      52.645 102.355 -19.594  1.00131.80      8
ATOM   4400  OE2  GLU C 110      54.156 103.203 -20.955  1.00131.20      8
ATOM   4401  C    GLU C 110      50.941 105.288 -17.545  1.00106.57      6
ATOM   4402  O    GLU C 110      50.976 105.636 -16.363  1.00106.27      8
ATOM   4403  N    ASP C 111      49.829 104.889 -18.153  1.00130.67      7
ATOM   4404  CA   ASP C 111      48.562 104.837 -17.441  1.00130.36      6
ATOM   4405  CB   ASP C 111      47.443 104.314 -18.349  1.00111.53      6
ATOM   4406  CG   ASP C 111      47.143 105.246 -19.500  1.00112.76      6
ATOM   4407  OD1  ASP C 111      46.999 106.462 -19.257  1.00112.10      8
ATOM   4408  OD2  ASP C 111      47.042 104.763 -20.647  1.00114.07      8
ATOM   4409  C    ASP C 111      48.671 103.945 -16.218  1.00129.01      6
ATOM   4410  O    ASP C 111      49.320 102.900 -16.251  1.00128.94      8
ATOM   4411  N    GLU C 112      48.038 104.380 -15.137  1.00 65.59      7
ATOM   4412  CA   GLU C 112      48.023 103.633 -13.896  1.00 63.56      6
ATOM   4413  CB   GLU C 112      47.309 102.295 -14.101  1.00 52.11      6
ATOM   4414  CG   GLU C 112      45.940 102.411 -14.737  1.00 51.24      6
ATOM   4415  CD   GLU C 112      44.939 103.138 -13.859  1.00 49.80      6
```

79

```
ATOM   4416   OE1  GLU C 112      44.595 102.600 -12.786  1.00  48.02      8
ATOM   4417   OE2  GLU C 112      44.494 104.242 -14.247  1.00  48.94      8
ATOM   4418   C    GLU C 112      49.404 103.371 -13.320  1.00  62.52      6
ATOM   4419   O    GLU C 112      49.667 103.729 -12.174  1.00  63.01      8
ATOM   4420   N    VAL C 113      50.288 102.757 -14.106  1.00  27.09      7
ATOM   4421   CA   VAL C 113      51.614 102.422 -13.601  1.00  26.32      6
ATOM   4422   CB   VAL C 113      52.356 103.659 -13.080  1.00  46.96      6
ATOM   4423   CG1  VAL C 113      53.837 103.351 -12.890  1.00  47.29      6
ATOM   4424   CG2  VAL C 113      52.129 104.821 -14.026  1.00  47.74      6
ATOM   4425   C    VAL C 113      51.334 101.515 -12.408  1.00  26.34      6
ATOM   4426   O    VAL C 113      51.326 101.976 -11.264  1.00  26.39      8
ATOM   4427   N    PHE C 114      51.078 100.236 -12.682  1.00  66.07      7
ATOM   4428   CA   PHE C 114      50.770  99.254 -11.642  1.00  67.05      6
ATOM   4429   CB   PHE C 114      50.988  97.828 -12.166  1.00208.87      6
ATOM   4430   CG   PHE C 114      50.006  97.420 -13.235  1.00208.87      6
ATOM   4431   CD1  PHE C 114      50.049  98.002 -14.500  1.00208.87      6
ATOM   4432   CD2  PHE C 114      49.014  96.480 -12.966  1.00208.87      6
ATOM   4433   CE1  PHE C 114      49.119  97.658 -15.478  1.00208.87      6
ATOM   4434   CE2  PHE C 114      48.078  96.129 -13.940  1.00208.87      6
ATOM   4435   CZ   PHE C 114      48.131  96.720 -15.198  1.00208.87      6
ATOM   4436   C    PHE C 114      51.626  99.516 -10.423  1.00  66.08      6
ATOM   4437   O    PHE C 114      52.782  99.913 -10.552  1.00  65.65      8
ATOM   4438   N    LEU C 115      51.075  99.284  -9.238  1.00110.47      7
ATOM   4439   CA   LEU C 115      51.837  99.586  -8.042  1.00109.25      6
ATOM   4440   CB   LEU C 115      51.597 101.061  -7.725  1.00  37.12      6
ATOM   4441   CG   LEU C 115      52.362 101.840  -6.671  1.00  37.25      6
ATOM   4442   CD1  LEU C 115      53.678 101.201  -6.264  1.00  37.12      6
ATOM   4443   CD2  LEU C 115      52.597 103.196  -7.286  1.00  38.33      6
ATOM   4444   C    LEU C 115      51.578  98.695  -6.820  1.00108.54      6
ATOM   4445   O    LEU C 115      51.036  97.589  -6.948  1.00108.51      8
ATOM   4446   N    GLY C 116      51.991  99.185  -5.647  1.00  46.71      7
ATOM   4447   CA   GLY C 116      51.831  98.451  -4.404  1.00  44.97      6
ATOM   4448   C    GLY C 116      50.410  98.185  -3.926  1.00  43.86      6
ATOM   4449   O    GLY C 116      49.435  98.802  -4.368  1.00  43.96      8
ATOM   4450   N    HIS C 117      50.301  97.245  -2.997  1.00  38.74      7
ATOM   4451   CA   HIS C 117      49.020  96.864  -2.432  1.00  37.35      6
ATOM   4452   CB   HIS C 117      49.010  95.360  -2.145  1.00  67.60      6
ATOM   4453   CG   HIS C 117      48.884  94.510  -3.372  1.00  68.06      6
ATOM   4454   CD2  HIS C 117      49.711  93.579  -3.899  1.00  67.77      6
ATOM   4455   ND1  HIS C 117      47.778  94.549  -4.195  1.00  68.70      7
ATOM   4456   CE1  HIS C 117      47.926  93.675  -5.173  1.00  67.88      6
ATOM   4457   NE2  HIS C 117      49.091  93.074  -5.017  1.00  68.90      7
ATOM   4458   C    HIS C 117      48.730  97.641  -1.160  1.00  35.72      6
ATOM   4459   O    HIS C 117      49.639  97.971  -0.400  1.00  34.73      8
ATOM   4460   N    LEU C 118      47.456  97.928  -0.931  1.00  74.84      7
ATOM   4461   CA   LEU C 118      47.047  98.673   0.249  1.00  74.20      6
ATOM   4462   CB   LEU C 118      46.449 100.027  -0.161  1.00  36.96      6
ATOM   4463   CG   LEU C 118      45.850 101.004   0.861  1.00  36.31      6
ATOM   4464   CD1  LEU C 118      45.481 102.272   0.131  1.00  36.65      6
ATOM   4465   CD2  LEU C 118      44.619 100.426   1.531  1.00  35.26      6
ATOM   4466   C    LEU C 118      46.017  97.889   1.037  1.00  73.30      6
ATOM   4467   O    LEU C 118      44.989  97.482   0.492  1.00  73.60      8
ATOM   4468   N    PRO C 119      46.292  97.637   2.326  1.00  28.71      7
ATOM   4469   CD   PRO C 119      47.628  97.637   2.960  1.00  31.16      6
ATOM   4470   CA   PRO C 119      45.306  96.892   3.119  1.00  27.70      6
ATOM   4471   CB   PRO C 119      46.105  96.455   4.359  1.00  31.28      6
```

80

```
ATOM    4472  CG   PRO C 119      47.319  97.367   4.403  1.00  29.88       6
ATOM    4473  C    PRO C 119      44.068  97.752   3.434  1.00  27.37       6
ATOM    4474  O    PRO C 119      44.170  98.906   3.855  1.00  26.16       8
ATOM    4475  N    LEU C 120      42.894  97.197   3.194  1.00  46.27       7
ATOM    4476  CA   LEU C 120      41.687  97.952   3.437  1.00  47.57       6
ATOM    4477  CB   LEU C 120      40.616  97.551   2.443  1.00  61.98       6
ATOM    4478  CG   LEU C 120      40.905  98.073   1.042  1.00  62.57       6
ATOM    4479  CD1  LEU C 120      40.198  97.222   0.015  1.00  64.23       6
ATOM    4480  CD2  LEU C 120      40.470  99.524   0.947  1.00  61.87       6
ATOM    4481  C    LEU C 120      41.197  97.747   4.845  1.00  48.67       6
ATOM    4482  O    LEU C 120      41.637  96.827   5.534  1.00  48.90       8
ATOM    4483  N    MET C 121      40.292  98.624   5.271  1.00  42.57       7
ATOM    4484  CA   MET C 121      39.718  98.581   6.614  1.00  43.86       6
ATOM    4485  CB   MET C 121      39.714 100.003   7.225  1.00  46.78       6
ATOM    4486  CG   MET C 121      39.464 100.086   8.744  1.00  49.57       6
ATOM    4487  SD   MET C 121      38.990 101.748   9.383  1.00  52.53      16
ATOM    4488  CE   MET C 121      40.558 102.447   9.830  1.00  54.56       6
ATOM    4489  C    MET C 121      38.292  98.046   6.483  1.00  43.88       6
ATOM    4490  O    MET C 121      37.494  98.558   5.705  1.00  44.11       8
ATOM    4491  N    THR C 122      37.973  97.001   7.229  1.00  29.41       7
ATOM    4492  CA   THR C 122      36.638  96.441   7.171  1.00  30.53       6
ATOM    4493  CB   THR C 122      36.553  95.186   7.993  1.00  59.28       6
ATOM    4494  OG1  THR C 122      37.695  94.376   7.717  1.00  59.40       8
ATOM    4495  CG2  THR C 122      35.290  94.423   7.643  1.00  61.33       6
ATOM    4496  C    THR C 122      35.622  97.438   7.723  1.00  31.12       6
ATOM    4497  O    THR C 122      35.999  98.406   8.386  1.00  31.55       8
ATOM    4498  N    GLU C 123      34.338  97.198   7.456  1.00  49.45       7
ATOM    4499  CA   GLU C 123      33.262  98.074   7.934  1.00  49.84       6
ATOM    4500  CB   GLU C 123      31.908  97.434   7.631  1.00  90.22       6
ATOM    4501  CG   GLU C 123      30.716  98.334   7.902  1.00  92.04       6
ATOM    4502  CD   GLU C 123      29.398  97.686   7.518  1.00  92.73       6
ATOM    4503  OE1  GLU C 123      28.619  97.333   8.433  1.00  93.55       8
ATOM    4504  OE2  GLU C 123      29.150  97.523   6.301  1.00  93.00       8
ATOM    4505  C    GLU C 123      33.417  98.265   9.439  1.00  49.89       6
ATOM    4506  O    GLU C 123      33.117  99.326   9.995  1.00  49.12       8
ATOM    4507  N    ASP C 124      33.898  97.193  10.063  1.00  52.75       7
ATOM    4508  CA   ASP C 124      34.159  97.086  11.496  1.00  52.67       6
ATOM    4509  CB   ASP C 124      34.775  95.708  11.784  1.00  61.98       6
ATOM    4510  CG   ASP C 124      34.826  95.382  13.260  1.00  64.87       6
ATOM    4511  OD1  ASP C 124      34.951  96.323  14.071  1.00  67.98       8
ATOM    4512  OD2  ASP C 124      34.752  94.182  13.612  1.00  66.35       8
ATOM    4513  C    ASP C 124      35.116  98.183  11.968  1.00  50.94       6
ATOM    4514  O    ASP C 124      35.043  98.633  13.118  1.00  50.05       8
ATOM    4515  N    GLY C 125      36.025  98.590  11.083  1.00  62.59       7
ATOM    4516  CA   GLY C 125      36.986  99.628  11.420  1.00  61.39       6
ATOM    4517  C    GLY C 125      38.375  99.110  11.745  1.00  59.43       6
ATOM    4518  O    GLY C 125      39.121  99.708  12.520  1.00  59.88       8
ATOM    4519  N    SER C 126      38.733  97.995  11.133  1.00  77.36       7
ATOM    4520  CA   SER C 126      40.030  97.394  11.372  1.00  73.95       6
ATOM    4521  CB   SER C 126      39.883  96.359  12.492  1.00  13.87       6
ATOM    4522  OG   SER C 126      38.551  95.856  12.538  1.00  13.87       8
ATOM    4523  C    SER C 126      40.512  96.749  10.072  1.00  73.71       6
ATOM    4524  O    SER C 126      39.938  96.992   9.008  1.00  75.22       8
ATOM    4525  N    PHE C 127      41.570  95.948  10.138  1.00  28.88       7
ATOM    4526  CA   PHE C 127      42.044  95.290   8.937  1.00  27.11       6
ATOM    4527  CB   PHE C 127      43.339  95.927   8.455  1.00  51.61       6
```

81

ATOM	4528	CG	PHE	C	127	43.347	97.420	8.516	1.00	53.45	6
ATOM	4529	CD1	PHE	C	127	43.426	98.080	9.733	1.00	55.26	6
ATOM	4530	CD2	PHE	C	127	43.328	98.174	7.355	1.00	54.19	6
ATOM	4531	CE1	PHE	C	127	43.498	99.471	9.792	1.00	55.29	6
ATOM	4532	CE2	PHE	C	127	43.398	99.566	7.404	1.00	55.13	6
ATOM	4533	CZ	PHE	C	127	43.483	100.213	8.624	1.00	55.33	6
ATOM	4534	C	PHE	C	127	42.291	93.806	9.193	1.00	26.15	6
ATOM	4535	O	PHE	C	127	42.443	93.387	10.348	1.00	26.14	8
ATOM	4536	N	ILE	C	128	42.298	93.020	8.113	1.00	29.00	7
ATOM	4537	CA	ILE	C	128	42.588	91.583	8.164	1.00	27.66	6
ATOM	4538	CB	ILE	C	128	41.754	90.738	7.214	1.00	15.94	6
ATOM	4539	CG2	ILE	C	128	42.249	89.318	7.278	1.00	14.69	6
ATOM	4540	CG1	ILE	C	128	40.274	90.828	7.556	1.00	17.08	6
ATOM	4541	CD1	ILE	C	128	39.693	92.171	7.310	1.00	20.48	6
ATOM	4542	C	ILE	C	128	43.968	91.516	7.566	1.00	28.11	6
ATOM	4543	O	ILE	C	128	44.150	91.905	6.414	1.00	29.53	8
ATOM	4544	N	ILE	C	129	44.940	91.023	8.317	1.00	53.67	7
ATOM	4545	CA	ILE	C	129	46.284	90.964	7.780	1.00	52.88	6
ATOM	4546	CB	ILE	C	129	47.187	91.997	8.468	1.00	15.23	6
ATOM	4547	CG2	ILE	C	129	48.547	91.971	7.843	1.00	16.20	6
ATOM	4548	CG1	ILE	C	129	46.553	93.385	8.329	1.00	13.87	6
ATOM	4549	CD1	ILE	C	129	47.506	94.531	8.013	1.00	14.82	6
ATOM	4550	C	ILE	C	129	46.917	89.588	7.843	1.00	52.95	6
ATOM	4551	O	ILE	C	129	47.298	89.107	8.906	1.00	52.12	8
ATOM	4552	N	ASN	C	130	47.023	88.967	6.676	1.00	33.54	7
ATOM	4553	CA	ASN	C	130	47.596	87.641	6.540	1.00	34.43	6
ATOM	4554	CB	ASN	C	130	48.944	87.552	7.254	1.00	65.84	6
ATOM	4555	CG	ASN	C	130	49.953	88.539	6.706	1.00	66.87	6
ATOM	4556	OD1	ASN	C	130	50.326	88.488	5.531	1.00	66.73	8
ATOM	4557	ND2	ASN	C	130	50.396	89.453	7.557	1.00	66.85	7
ATOM	4558	C	ASN	C	130	46.640	86.613	7.098	1.00	34.18	6
ATOM	4559	O	ASN	C	130	47.036	85.501	7.438	1.00	35.03	8
ATOM	4560	N	GLY	C	131	45.373	86.992	7.191	1.00	27.94	7
ATOM	4561	CA	GLY	C	131	44.376	86.071	7.698	1.00	26.19	6
ATOM	4562	C	GLY	C	131	43.759	86.491	9.008	1.00	24.96	6
ATOM	4563	O	GLY	C	131	42.551	86.411	9.164	1.00	23.55	8
ATOM	4564	N	ALA	C	132	44.595	86.938	9.938	1.00	40.17	7
ATOM	4565	CA	ALA	C	132	44.150	87.381	11.256	1.00	40.65	6
ATOM	4566	CB	ALA	C	132	45.280	87.214	12.257	1.00	77.38	6
ATOM	4567	C	ALA	C	132	43.641	88.832	11.283	1.00	40.65	6
ATOM	4568	O	ALA	C	132	43.964	89.640	10.407	1.00	41.21	8
ATOM	4569	N	ASP	C	133	42.843	89.149	12.302	1.00	15.55	7
ATOM	4570	CA	ASP	C	133	42.277	90.478	12.448	1.00	14.38	6
ATOM	4571	CB	ASP	C	133	40.892	90.404	13.073	1.00	64.17	6
ATOM	4572	CG	ASP	C	133	39.938	89.573	12.266	1.00	67.59	6
ATOM	4573	OD1	ASP	C	133	39.457	90.068	11.226	1.00	70.82	8
ATOM	4574	OD2	ASP	C	133	39.675	88.420	12.673	1.00	69.26	8
ATOM	4575	C	ASP	C	133	43.149	91.312	13.334	1.00	13.87	6
ATOM	4576	O	ASP	C	133	43.591	90.867	14.393	1.00	13.87	8
ATOM	4577	N	ARG	C	134	43.386	92.540	12.901	1.00	31.25	7
ATOM	4578	CA	ARG	C	134	44.204	93.457	13.677	1.00	30.63	6
ATOM	4579	CB	ARG	C	134	45.627	93.572	13.118	1.00	47.57	6
ATOM	4580	CG	ARG	C	134	46.194	92.313	12.479	1.00	51.45	6
ATOM	4581	CD	ARG	C	134	47.698	92.335	12.518	1.00	52.73	6
ATOM	4582	NE	ARG	C	134	48.169	91.668	13.716	1.00	54.72	7
ATOM	4583	CZ	ARG	C	134	49.360	91.878	14.247	1.00	57.60	6

```
ATOM   4584   NH1 ARG C 134      50.173  92.749  13.668  1.00 58.08      7
ATOM   4585   NH2 ARG C 134      49.741  91.211  15.332  1.00 60.44      7
ATOM   4586   C   ARG C 134      43.570  94.828  13.643  1.00 28.37      6
ATOM   4587   O   ARG C 134      42.817  95.160  12.719  1.00 28.20      8
ATOM   4588   N   VAL C 135      43.906  95.621  14.656  1.00 23.37      7
ATOM   4589   CA  VAL C 135      43.402  96.976  14.800  1.00 20.65      6
ATOM   4590   CB  VAL C 135      42.484  97.063  16.037  1.00 13.87      6
ATOM   4591   CG1 VAL C 135      41.236  97.848  15.700  1.00 13.87      6
ATOM   4592   CG2 VAL C 135      42.127  95.653  16.528  1.00 13.87      6
ATOM   4593   C   VAL C 135      44.584  97.953  14.953  1.00 20.23      6
ATOM   4594   O   VAL C 135      45.553  97.664  15.641  1.00 19.42      8
ATOM   4595   N   ILE C 136      44.509  99.099  14.294  1.00 17.38      7
ATOM   4596   CA  ILE C 136      45.566 100.095  14.392  1.00 19.94      6
ATOM   4597   CB  ILE C 136      45.684 100.894  13.088  1.00 37.79      6
ATOM   4598   CG2 ILE C 136      46.695 102.030  13.252  1.00 39.14      6
ATOM   4599   CG1 ILE C 136      46.090  99.953  11.957  1.00 39.94      6
ATOM   4600   CD1 ILE C 136      47.387  99.226  12.220  1.00 42.63      6
ATOM   4601   C   ILE C 136      45.308 101.071  15.548  1.00 20.26      6
ATOM   4602   O   ILE C 136      44.535 102.020  15.407  1.00 18.99      8
ATOM   4603   N   VAL C 137      45.964 100.824  16.682  1.00 25.21      7
ATOM   4604   CA  VAL C 137      45.827 101.646  17.888  1.00 25.11      6
ATOM   4605   CB  VAL C 137      46.507 100.985  19.088  1.00 16.86      6
ATOM   4606   CG1 VAL C 137      46.279 101.804  20.338  1.00 15.96      6
ATOM   4607   CG2 VAL C 137      45.983  99.583  19.255  1.00 16.90      6
ATOM   4608   C   VAL C 137      46.454 103.003  17.684  1.00 25.80      6
ATOM   4609   O   VAL C 137      47.591 103.111  17.244  1.00 26.80      8
ATOM   4610   N   SER C 138      45.703 104.033  18.046  1.00 16.42      7
ATOM   4611   CA  SER C 138      46.108 105.426  17.881  1.00 18.38      6
ATOM   4612   CB  SER C 138      44.825 106.233  17.718  1.00 28.33      6
ATOM   4613   OG  SER C 138      43.729 105.459  18.193  1.00 25.47      8
ATOM   4614   C   SER C 138      46.982 106.007  18.998  1.00 20.62      6
ATOM   4615   O   SER C 138      46.548 106.092  20.145  1.00 20.75      8
ATOM   4616   N   GLN C 139      48.199 106.433  18.665  1.00 29.81      7
ATOM   4617   CA  GLN C 139      49.080 106.970  19.698  1.00 33.75      6
ATOM   4618   CB  GLN C 139      50.535 106.576  19.443  1.00 57.86      6
ATOM   4619   CG  GLN C 139      51.270 107.377  18.388  1.00 59.42      6
ATOM   4620   CD  GLN C 139      52.765 107.079  18.396  1.00 61.08      6
ATOM   4621   OE1 GLN C 139      53.183 105.925  18.295  1.00 60.50      8
ATOM   4622   NE2 GLN C 139      53.574 108.122  18.515  1.00 62.00      7
ATOM   4623   C   GLN C 139      48.999 108.468  19.826  1.00 36.24      6
ATOM   4624   O   GLN C 139      48.320 109.107  19.040  1.00 37.91      8
ATOM   4625   N   ILE C 140      49.678 109.023  20.831  1.00 69.32      7
ATOM   4626   CA  ILE C 140      49.696 110.472  21.049  1.00 71.94      6
ATOM   4627   CB  ILE C 140      48.751 110.921  22.203  1.00 32.52      6
ATOM   4628   CG2 ILE C 140      47.328 110.632  21.853  1.00 32.85      6
ATOM   4629   CG1 ILE C 140      49.099 110.211  23.502  1.00 31.17      6
ATOM   4630   CD1 ILE C 140      48.294 110.720  24.656  1.00 28.81      6
ATOM   4631   C   ILE C 140      51.088 111.003  21.379  1.00 74.89      6
ATOM   4632   O   ILE C 140      51.830 110.392  22.151  1.00 76.12      8
ATOM   4633   N   HIS C 141      51.437 112.144  20.785  1.00 41.40      7
ATOM   4634   CA  HIS C 141      52.731 112.792  21.026  1.00 44.28      6
ATOM   4635   CB  HIS C 141      53.683 112.585  19.846  1.00100.71      6
ATOM   4636   CG  HIS C 141      53.140 113.080  18.541  1.00103.58      6
ATOM   4637   CD2 HIS C 141      53.213 114.296  17.949  1.00105.25      6
ATOM   4638   ND1 HIS C 141      52.387 112.290  17.700  1.00104.95      7
ATOM   4639   CE1 HIS C 141      52.019 112.997  16.647  1.00105.35      6
```

```
ATOM   4640   NE2 HIS C 141      52.507 114.218   16.773   1.00105.39    7
ATOM   4641   C   HIS C 141      52.497 114.284   21.222   1.00  45.08    6
ATOM   4642   O   HIS C 141      51.361 114.753   21.199   1.00  45.45    8
ATOM   4643   N   ARG C 142      53.560 115.046   21.404   1.00  45.25    7
ATOM   4644   CA  ARG C 142      53.350 116.465   21.603   1.00  46.96    6
ATOM   4645   CB  ARG C 142      54.602 117.101   22.211   1.00  87.26    6
ATOM   4646   CG  ARG C 142      54.293 118.353   23.024   1.00  88.28    6
ATOM   4647   CD  ARG C 142      54.803 118.265   24.456   1.00  88.37    6
ATOM   4648   NE  ARG C 142      56.001 119.070   24.671   1.00  85.96    7
ATOM   4649   CZ  ARG C 142      57.179 118.808   24.125   1.00  84.10    6
ATOM   4650   NH1 ARG C 142      57.320 117.756   23.334   1.00  81.90    7
ATOM   4651   NH2 ARG C 142      58.209 119.606   24.361   1.00  83.03    7
ATOM   4652   C   ARG C 142      52.988 117.131   20.276   1.00  47.16    6
ATOM   4653   O   ARG C 142      53.758 117.043   19.325   1.00  46.66    8
ATOM   4654   N   SER C 143      51.825 117.788   20.207   1.00  24.06    7
ATOM   4655   CA  SER C 143      51.377 118.446   18.966   1.00  24.67    6
ATOM   4656   CB  SER C 143      50.112 119.266   19.219   1.00137.30    6
ATOM   4657   OG  SER C 143      50.380 120.379   20.052   1.00140.68    8
ATOM   4658   C   SER C 143      52.455 119.347   18.388   1.00  23.88    6
ATOM   4659   O   SER C 143      52.917 120.257   19.040   1.00  23.01    8
ATOM   4660   N   PRO C 144      52.861 119.102   17.145   1.00  54.84    7
ATOM   4661   CD  PRO C 144      52.222 118.197   16.178   1.00  78.94    6
ATOM   4662   CA  PRO C 144      53.898 119.904   16.500   1.00  56.24    6
ATOM   4663   CB  PRO C 144      53.619 119.686   15.025   1.00  79.24    6
ATOM   4664   CG  PRO C 144      53.168 118.272   15.006   1.00  79.94    6
ATOM   4665   C   PRO C 144      53.867 121.377   16.886   1.00  57.78    6
ATOM   4666   O   PRO C 144      52.795 121.989   16.943   1.00  58.39    8
ATOM   4667   N   GLY C 145      55.043 121.943   17.150   1.00  56.07    7
ATOM   4668   CA  GLY C 145      55.116 123.345   17.516   1.00  57.15    6
ATOM   4669   C   GLY C 145      56.431 123.783   18.132   1.00  58.03    6
ATOM   4670   O   GLY C 145      57.505 123.559   17.576   1.00  58.65    8
ATOM   4671   N   VAL C 146      56.328 124.409   19.301   1.00  70.55    7
ATOM   4672   CA  VAL C 146      57.469 124.934   20.054   1.00  71.73    6
ATOM   4673   CB  VAL C 146      58.084 126.164   19.321   1.00  86.38    6
ATOM   4674   CG1 VAL C 146      58.807 127.069   20.304   1.00  87.82    6
ATOM   4675   CG2 VAL C 146      59.045 125.699   18.241   1.00  87.33    6
ATOM   4676   C   VAL C 146      56.920 125.377   21.411   1.00  71.72    6
ATOM   4677   O   VAL C 146      55.961 126.139   21.457   1.00  71.68    8
ATOM   4678   N   TYR C 147      57.503 124.911   22.512   1.00117.29    7
ATOM   4679   CA  TYR C 147      56.984 125.318   23.814   1.00117.99    6
ATOM   4680   CB  TYR C 147      56.107 124.229   24.423   1.00  56.96    6
ATOM   4681   CG  TYR C 147      55.592 123.190   23.463   1.00  55.38    6
ATOM   4682   CD1 TYR C 147      56.452 122.268   22.880   1.00  54.18    6
ATOM   4683   CE1 TYR C 147      55.963 121.274   22.056   1.00  53.00    6
ATOM   4684   CD2 TYR C 147      54.230 123.090   23.186   1.00  55.16    6
ATOM   4685   CE2 TYR C 147      53.739 122.106   22.365   1.00  53.62    6
ATOM   4686   CZ  TYR C 147      54.604 121.201   21.807   1.00  52.84    6
ATOM   4687   OH  TYR C 147      54.104 120.196   21.022   1.00  53.09    8
ATOM   4688   C   TYR C 147      58.020 125.703   24.856   1.00119.45    6
ATOM   4689   O   TYR C 147      57.672 126.267   25.890   1.00121.23    8
ATOM   4690   N   PHE C 148      59.282 125.385   24.599   1.00127.73    7
ATOM   4691   CA  PHE C 148      60.356 125.701   25.534   1.00127.40    6
ATOM   4692   CB  PHE C 148      60.178 127.120   26.072   1.00  72.62    6
ATOM   4693   CG  PHE C 148      60.496 128.170   25.051   1.00  72.89    6
ATOM   4694   CD1 PHE C 148      59.873 128.150   23.813   1.00  72.38    6
ATOM   4695   CD2 PHE C 148      61.487 129.109   25.281   1.00  73.32    6
```

```
ATOM    4696  CE1 PHE C 148      60.239 129.032  22.820  1.00 72.68      6
ATOM    4697  CE2 PHE C 148      61.859 129.995  24.290  1.00 73.89      6
ATOM    4698  CZ  PHE C 148      61.234 129.956  23.056  1.00 73.37      6
ATOM    4699  C   PHE C 148      60.465 124.672  26.653  1.00127.51      6
ATOM    4700  O   PHE C 148      60.867 123.547  26.365  1.00129.30      8
ATOM    4701  N   THR C 149      60.129 125.027  27.899  1.00 41.88      7
ATOM    4702  CA  THR C 149      60.218 124.066  29.020  1.00 40.35      6
ATOM    4703  CB  THR C 149      60.313 122.622  28.508  1.00 45.51      6
ATOM    4704  OG1 THR C 149      59.144 122.319  27.751  1.00 45.70      8
ATOM    4705  CG2 THR C 149      60.481 121.638  29.638  1.00 45.67      6
ATOM    4706  C   THR C 149      61.430 124.263  29.932  1.00 39.60      6
ATOM    4707  O   THR C 149      62.506 124.636  29.468  1.00 39.78      8
ATOM    4708  N   PRO C 150      61.274 123.994  31.244  1.00 43.39      7
ATOM    4709  CD  PRO C 150      60.009 123.690  31.934  1.00 74.13      6
ATOM    4710  CA  PRO C 150      62.356 124.134  32.226  1.00 42.51      6
ATOM    4711  CB  PRO C 150      61.624 124.041  33.559  1.00 73.28      6
ATOM    4712  CG  PRO C 150      60.504 123.118  33.242  1.00 74.47      6
ATOM    4713  C   PRO C 150      63.445 123.072  32.100  1.00 41.93      6
ATOM    4714  O   PRO C 150      63.175 121.882  32.204  1.00 41.14      8
ATOM    4715  N   ASP C 151      64.675 123.523  31.888  1.00 60.62      7
ATOM    4716  CA  ASP C 151      65.818 122.636  31.750  1.00 61.64      6
ATOM    4717  CB  ASP C 151      67.095 123.459  31.661  1.00 82.47      6
ATOM    4718  CG  ASP C 151      68.284 122.636  31.246  1.00 83.64      6
ATOM    4719  OD1 ASP C 151      68.498 121.571  31.861  1.00 85.08      8
ATOM    4720  OD2 ASP C 151      69.005 123.054  30.310  1.00 83.86      8
ATOM    4721  C   ASP C 151      65.884 121.736  32.970  1.00 62.64      6
ATOM    4722  O   ASP C 151      66.220 122.190  34.060  1.00 62.88      8
ATOM    4723  N   PRO C 152      65.584 120.441  32.801  1.00 53.51      7
ATOM    4724  CD  PRO C 152      65.413 119.745  31.515  1.00152.73      6
ATOM    4725  CA  PRO C 152      65.605 119.475  33.907  1.00 53.78      6
ATOM    4726  CB  PRO C 152      65.331 118.146  33.205  1.00153.68      6
ATOM    4727  CG  PRO C 152      65.910 118.364  31.837  1.00153.85      6
ATOM    4728  C   PRO C 152      66.890 119.445  34.742  1.00 53.62      6
ATOM    4729  O   PRO C 152      66.836 119.280  35.965  1.00 52.96      8
ATOM    4730  N   ALA C 153      68.034 119.590  34.077  1.00112.64      7
ATOM    4731  CA  ALA C 153      69.326 119.588  34.754  1.00113.39      6
ATOM    4732  CB  ALA C 153      70.404 120.125  33.817  1.00 30.18      6
ATOM    4733  C   ALA C 153      69.232 120.458  36.002  1.00113.68      6
ATOM    4734  O   ALA C 153      68.842 119.992  37.075  1.00113.62      8
ATOM    4735  N   ARG C 154      69.600 121.724  35.854  1.00 60.59      7
ATOM    4736  CA  ARG C 154      69.532 122.675  36.953  1.00 60.51      6
ATOM    4737  CB  ARG C 154      70.924 122.944  37.515  1.00102.11      6
ATOM    4738  CG  ARG C 154      71.529 121.762  38.255  1.00103.38      6
ATOM    4739  CD  ARG C 154      70.707 121.387  39.481  1.00105.00      6
ATOM    4740  NE  ARG C 154      71.391 120.388  40.300  1.00106.91      7
ATOM    4741  CZ  ARG C 154      70.934 119.922  41.459  1.00107.11      6
ATOM    4742  NH1 ARG C 154      69.782 120.362  41.946  1.00107.07      7
ATOM    4743  NH2 ARG C 154      71.634 119.018  42.133  1.00106.92      7
ATOM    4744  C   ARG C 154      68.934 123.945  36.367  1.00 60.26      6
ATOM    4745  O   ARG C 154      69.385 124.409  35.317  1.00 60.90      8
ATOM    4746  N   PRO C 155      67.921 124.525  37.046  1.00123.78      7
ATOM    4747  CD  PRO C 155      67.773 124.324  38.492  1.00 72.44      6
ATOM    4748  CA  PRO C 155      67.197 125.742  36.654  1.00123.95      6
ATOM    4749  CB  PRO C 155      67.106 126.545  37.964  1.00 72.35      6
ATOM    4750  CG  PRO C 155      67.916 125.733  38.984  1.00 72.06      6
ATOM    4751  C   PRO C 155      67.791 126.542  35.500  1.00123.67      6
```

85

```
ATOM    4752  O    PRO C 155      68.825 127.200  35.637  1.00123.37       8
ATOM    4753  N    GLY C 156      67.118 126.474  34.356  1.00 79.22       7
ATOM    4754  CA   GLY C 156      67.586 127.186  33.188  1.00 78.18       6
ATOM    4755  C    GLY C 156      66.950 126.674  31.918  1.00 78.05       6
ATOM    4756  O    GLY C 156      67.636 126.094  31.082  1.00 78.51       8
ATOM    4757  N    ARG C 157      65.645 126.895  31.778  1.00 53.95       7
ATOM    4758  CA   ARG C 157      64.886 126.477  30.597  1.00 53.98       6
ATOM    4759  CB   ARG C 157      63.700 127.418  30.360  1.00 62.64       6
ATOM    4760  CG   ARG C 157      63.671 128.658  31.234  1.00 62.58       6
ATOM    4761  CD   ARG C 157      62.903 128.383  32.518  1.00 62.90       6
ATOM    4762  NE   ARG C 157      62.815 129.558  33.379  1.00 62.14       7
ATOM    4763  CZ   ARG C 157      62.214 129.572  34.565  1.00 61.89       6
ATOM    4764  NH1  ARG C 157      61.643 128.470  35.040  1.00 61.21       7
ATOM    4765  NH2  ARG C 157      62.191 130.688  35.282  1.00 61.30       7
ATOM    4766  C    ARG C 157      65.648 126.362  29.269  1.00 54.44       6
ATOM    4767  O    ARG C 157      66.756 126.893  29.096  1.00 54.30       8
ATOM    4768  N    TYR C 158      65.030 125.655  28.327  1.00121.76       7
ATOM    4769  CA   TYR C 158      65.591 125.473  26.994  1.00122.22       6
ATOM    4770  CB   TYR C 158      66.222 124.088  26.830  1.00123.23       6
ATOM    4771  CG   TYR C 158      65.461 122.969  27.486  1.00124.02       6
ATOM    4772  CD1  TYR C 158      64.074 122.998  27.575  1.00124.12       6
ATOM    4773  CE1  TYR C 158      63.373 121.966  28.181  1.00125.39       6
ATOM    4774  CD2  TYR C 158      66.133 121.874  28.016  1.00125.08       6
ATOM    4775  CE2  TYR C 158      65.443 120.833  28.621  1.00126.19       6
ATOM    4776  CZ   TYR C 158      64.059 120.885  28.703  1.00126.37       6
ATOM    4777  OH   TYR C 158      63.365 119.860  29.310  1.00126.79       8
ATOM    4778  C    TYR C 158      64.490 125.649  25.967  1.00121.49       6
ATOM    4779  O    TYR C 158      63.373 126.041  26.300  1.00121.07       8
ATOM    4780  N    ILE C 159      64.807 125.356  24.714  1.00 29.94       7
ATOM    4781  CA   ILE C 159      63.836 125.500  23.648  1.00 29.68       6
ATOM    4782  CB   ILE C 159      64.154 126.715  22.764  1.00 68.63       6
ATOM    4783  CG2  ILE C 159      62.944 127.066  21.902  1.00 68.71       6
ATOM    4784  CG1  ILE C 159      64.518 127.908  23.642  1.00 69.14       6
ATOM    4785  CD1  ILE C 159      64.982 129.105  22.855  1.00 70.48       6
ATOM    4786  C    ILE C 159      63.781 124.269  22.757  1.00 29.29       6
ATOM    4787  O    ILE C 159      64.799 123.804  22.231  1.00 28.38       8
ATOM    4788  N    ALA C 160      62.574 123.746  22.596  1.00 62.13       7
ATOM    4789  CA   ALA C 160      62.358 122.584  21.765  1.00 62.42       6
ATOM    4790  CB   ALA C 160      61.670 121.492  22.576  1.00 13.87       6
ATOM    4791  C    ALA C 160      61.495 123.014  20.589  1.00 63.06       6
ATOM    4792  O    ALA C 160      60.536 123.767  20.749  1.00 63.00       8
ATOM    4793  N    SER C 161      61.847 122.554  19.399  1.00 52.02       7
ATOM    4794  CA   SER C 161      61.082 122.897  18.215  1.00 53.53       6
ATOM    4795  CB   SER C 161      61.958 123.713  17.264  1.00 35.62       6
ATOM    4796  OG   SER C 161      61.206 124.209  16.171  1.00 33.38       8
ATOM    4797  C    SER C 161      60.604 121.603  17.542  1.00 55.90       6
ATOM    4798  O    SER C 161      61.330 121.009  16.744  1.00 56.86       8
ATOM    4799  N    ILE C 162      59.389 121.167  17.876  1.00 66.20       7
ATOM    4800  CA   ILE C 162      58.800 119.942  17.321  1.00 69.04       6
ATOM    4801  CB   ILE C 162      57.438 119.631  18.001  1.00110.64       6
ATOM    4802  CG2  ILE C 162      56.653 118.604  17.196  1.00110.49       6
ATOM    4803  CG1  ILE C 162      57.666 119.075  19.408  1.00112.67       6
ATOM    4804  CD1  ILE C 162      58.586 119.892  20.279  1.00115.54       6
ATOM    4805  C    ILE C 162      58.595 119.997  15.802  1.00 70.21       6
ATOM    4806  O    ILE C 162      58.684 121.048  15.184  1.00 70.59       8
ATOM    4807  N    ILE C 163      58.319 118.851  15.205  1.00 55.46       7
```

86

```
ATOM   4808  CA   ILE C 163      58.113 118.776  13.779  1.00 58.28      6
ATOM   4809  CB   ILE C 163      59.297 118.055  13.117  1.00108.27      6
ATOM   4810  CG2  ILE C 163      59.951 118.969  12.104  1.00109.24      6
ATOM   4811  CG1  ILE C 163      60.352 117.705  14.166  1.00109.10      6
ATOM   4812  CD1  ILE C 163      59.941 116.607  15.120  1.00109.92      6
ATOM   4813  C    ILE C 163      56.794 118.036  13.537  1.00 60.36      6
ATOM   4814  O    ILE C 163      56.397 117.203  14.353  1.00 60.87      8
ATOM   4815  N    PRO C 164      56.116 118.314  12.400  1.00170.37      7
ATOM   4816  CD   PRO C 164      56.844 118.802  11.219  1.00206.16      6
ATOM   4817  CA   PRO C 164      54.830 117.739  11.970  1.00172.36      6
ATOM   4818  CB   PRO C 164      54.944 117.723  10.440  1.00206.05      6
ATOM   4819  CG   PRO C 164      56.420 117.813  10.180  1.00206.20      6
ATOM   4820  C    PRO C 164      54.465 116.377  12.542  1.00172.85      6
ATOM   4821  O    PRO C 164      53.383 116.198  13.099  1.00173.08      8
ATOM   4822  N    LEU C 165      55.363 115.417  12.375  1.00 84.53      7
ATOM   4823  CA   LEU C 165      55.172 114.069  12.893  1.00 86.24      6
ATOM   4824  CB   LEU C 165      54.306 113.221  11.951  1.00183.33      6
ATOM   4825  CG   LEU C 165      52.809 113.557  11.928  1.00185.30      6
ATOM   4826  CD1  LEU C 165      52.093 112.712  10.891  1.00186.01      6
ATOM   4827  CD2  LEU C 165      52.213 113.320  13.302  1.00185.64      6
ATOM   4828  C    LEU C 165      56.557 113.476  13.012  1.00 86.63      6
ATOM   4829  O    LEU C 165      57.412 113.713  12.158  1.00 86.89      8
ATOM   4830  N    PRO C 166      56.799 112.698  14.075  1.00129.88      7
ATOM   4831  CD   PRO C 166      55.740 112.149  14.942  1.00 63.26      6
ATOM   4832  CA   PRO C 166      58.087 112.049  14.348  1.00130.73      6
ATOM   4833  CB   PRO C 166      57.676 110.812  15.132  1.00 63.82      6
ATOM   4834  CG   PRO C 166      56.530 111.347  15.955  1.00 63.96      6
ATOM   4835  C    PRO C 166      58.897 111.725  13.091  1.00131.07      6
ATOM   4836  O    PRO C 166      59.954 112.310  12.855  1.00131.68      8
ATOM   4837  N    LYS C 167      58.399 110.795  12.285  1.00154.09      7
ATOM   4838  CA   LYS C 167      59.085 110.433  11.057  1.00154.27      6
ATOM   4839  CB   LYS C 167      58.579 109.081  10.544  1.00100.00      6
ATOM   4840  CG   LYS C 167      58.792 107.916  11.512  1.00101.09      6
ATOM   4841  CD   LYS C 167      58.184 106.614  10.967  1.00101.62      6
ATOM   4842  CE   LYS C 167      58.275 105.457  11.967  1.00101.62      6
ATOM   4843  NZ   LYS C 167      57.599 104.220  11.477  1.00102.16      7
ATOM   4844  C    LYS C 167      58.834 111.521  10.015  1.00153.74      6
ATOM   4845  O    LYS C 167      58.104 111.312   9.046  1.00154.66      8
ATOM   4846  N    ARG C 168      59.438 112.687  10.237  1.00208.87      7
ATOM   4847  CA   ARG C 168      59.309 113.829   9.335  1.00208.87      6
ATOM   4848  CB   ARG C 168      57.868 113.965   8.836  1.00146.96      6
ATOM   4849  CG   ARG C 168      57.609 115.305   8.191  1.00149.03      6
ATOM   4850  CD   ARG C 168      56.342 115.325   7.376  1.00150.54      6
ATOM   4851  NE   ARG C 168      56.202 116.607   6.692  1.00151.71      7
ATOM   4852  CZ   ARG C 168      55.323 116.851   5.727  1.00153.30      6
ATOM   4853  NH1  ARG C 168      54.495 115.898   5.325  1.00155.10      7
ATOM   4854  NH2  ARG C 168      55.272 118.049   5.161  1.00153.41      7
ATOM   4855  C    ARG C 168      59.736 115.157   9.967  1.00208.87      6
ATOM   4856  O    ARG C 168      59.030 115.699  10.818  1.00208.87      8
ATOM   4857  N    GLY C 169      60.880 115.685   9.534  1.00101.34      7
ATOM   4858  CA   GLY C 169      61.369 116.945  10.067  1.00 96.06      6
ATOM   4859  C    GLY C 169      62.264 116.774  11.280  1.00 92.86      6
ATOM   4860  O    GLY C 169      62.176 115.768  11.978  1.00 93.47      8
ATOM   4861  N    PRO C 170      63.155 117.733  11.549  1.00 79.40      7
ATOM   4862  CD   PRO C 170      63.788 118.589  10.539  1.00 58.08      6
ATOM   4863  CA   PRO C 170      64.032 117.597  12.716  1.00 75.94      6
```

87

```
ATOM   4864  CB  PRO C 170      65.343 118.234  12.253  1.00 55.31       6
ATOM   4865  CG  PRO C 170      65.232 118.248  10.746  1.00 55.85       6
ATOM   4866  C   PRO C 170      63.506 118.257  13.990  1.00 73.58       6
ATOM   4867  O   PRO C 170      62.975 119.372  13.972  1.00 73.71       8
ATOM   4868  N   TRP C 171      63.667 117.536  15.091  1.00 62.07       7
ATOM   4869  CA  TRP C 171      63.265 117.978  16.415  1.00 58.42       6
ATOM   4870  CB  TRP C 171      62.937 116.743  17.265  1.00 73.02       6
ATOM   4871  CG  TRP C 171      62.826 116.966  18.741  1.00 71.24       6
ATOM   4872  CD2 TRP C 171      61.630 116.935  19.519  1.00 70.57       6
ATOM   4873  CE2 TRP C 171      61.996 117.177  20.858  1.00 69.79       6
ATOM   4874  CE3 TRP C 171      60.282 116.726  19.214  1.00 69.74       6
ATOM   4875  CD1 TRP C 171      63.844 117.218  19.616  1.00 70.80       6
ATOM   4876  NE1 TRP C 171      63.353 117.345  20.891  1.00 70.14       7
ATOM   4877  CZ2 TRP C 171      61.063 117.216  21.886  1.00 68.62       6
ATOM   4878  CZ3 TRP C 171      59.360 116.762  20.236  1.00 68.21       6
ATOM   4879  CH2 TRP C 171      59.752 117.007  21.556  1.00 68.40       6
ATOM   4880  C   TRP C 171      64.474 118.728  16.964  1.00 57.22       6
ATOM   4881  O   TRP C 171      65.439 118.116  17.436  1.00 57.05       8
ATOM   4882  N   ILE C 172      64.422 120.054  16.869  1.00 46.00       7
ATOM   4883  CA  ILE C 172      65.502 120.922  17.330  1.00 43.86       6
ATOM   4884  CB  ILE C 172      65.619 122.181  16.417  1.00 53.44       6
ATOM   4885  CG2 ILE C 172      66.528 123.230  17.047  1.00 52.58       6
ATOM   4886  CG1 ILE C 172      66.152 121.776  15.044  1.00 53.18       6
ATOM   4887  CD1 ILE C 172      66.485 122.952  14.143  1.00 53.90       6
ATOM   4888  C   ILE C 172      65.339 121.382  18.777  1.00 43.80       6
ATOM   4889  O   ILE C 172      64.232 121.420  19.312  1.00 43.38       8
ATOM   4890  N   ASP C 173      66.456 121.716  19.410  1.00 27.91       7
ATOM   4891  CA  ASP C 173      66.447 122.216  20.773  1.00 28.66       6
ATOM   4892  CB  ASP C 173      66.740 121.095  21.765  1.00 75.82       6
ATOM   4893  CG  ASP C 173      65.505 120.346  22.177  1.00 77.50       6
ATOM   4894  OD1 ASP C 173      64.542 120.998  22.616  1.00 79.36       8
ATOM   4895  OD2 ASP C 173      65.498 119.105  22.074  1.00 78.29       8
ATOM   4896  C   ASP C 173      67.500 123.312  20.918  1.00 29.71       6
ATOM   4897  O   ASP C 173      68.668 123.104  20.580  1.00 29.08       8
ATOM   4898  N   LEU C 174      67.092 124.485  21.393  1.00 51.31       7
ATOM   4899  CA  LEU C 174      68.032 125.587  21.590  1.00 52.02       6
ATOM   4900  CB  LEU C 174      67.456 126.917  21.099  1.00 30.46       6
ATOM   4901  CG  LEU C 174      66.724 127.041  19.762  1.00 27.68       6
ATOM   4902  CD1 LEU C 174      66.242 128.477  19.614  1.00 27.71       6
ATOM   4903  CD2 LEU C 174      67.632 126.655  18.604  1.00 27.25       6
ATOM   4904  C   LEU C 174      68.232 125.674  23.089  1.00 53.81       6
ATOM   4905  O   LEU C 174      67.301 126.000  23.820  1.00 52.87       8
ATOM   4906  N   GLU C 175      69.440 125.393  23.554  1.00 91.87       7
ATOM   4907  CA  GLU C 175      69.693 125.428  24.985  1.00 95.65       6
ATOM   4908  CB  GLU C 175      70.099 124.031  25.465  1.00184.07       6
ATOM   4909  CG  GLU C 175      70.397 123.942  26.955  1.00187.25       6
ATOM   4910  CD  GLU C 175      70.953 122.590  27.358  1.00189.17       6
ATOM   4911  OE1 GLU C 175      72.020 122.204  26.832  1.00189.79       8
ATOM   4912  OE2 GLU C 175      70.325 121.912  28.200  1.00190.45       8
ATOM   4913  C   GLU C 175      70.750 126.434  25.419  1.00 97.00       6
ATOM   4914  O   GLU C 175      71.828 126.502  24.831  1.00 97.41       8
ATOM   4915  N   VAL C 176      70.425 127.220  26.445  1.00109.36       7
ATOM   4916  CA  VAL C 176      71.362 128.192  27.008  1.00111.86       6
ATOM   4917  CB  VAL C 176      70.631 129.383  27.649  1.00 99.51       6
ATOM   4918  CG1 VAL C 176      70.510 130.519  26.653  1.00 99.77       6
ATOM   4919  CG2 VAL C 176      69.251 128.941  28.118  1.00 99.99       6
```

88

```
ATOM   4920  C    VAL C 176      72.099 127.418  28.096  1.00113.46      6
ATOM   4921  O    VAL C 176      71.473 126.934  29.041  1.00113.99      8
ATOM   4922  N    GLU C 177      73.418 127.301  27.963  1.00114.43      7
ATOM   4923  CA   GLU C 177      74.213 126.533  28.916  1.00115.97      6
ATOM   4924  CB   GLU C 177      74.934 125.409  28.174  1.00 69.53      6
ATOM   4925  CG   GLU C 177      75.954 125.905  27.171  1.00 69.55      6
ATOM   4926  CD   GLU C 177      75.801 125.258  25.812  1.00 70.88      6
ATOM   4927  OE1  GLU C 177      74.720 125.413  25.211  1.00 72.04      8
ATOM   4928  OE2  GLU C 177      76.757 124.598  25.341  1.00 72.21      8
ATOM   4929  C    GLU C 177      75.235 127.319  29.726  1.00117.14      6
ATOM   4930  O    GLU C 177      75.312 128.547  29.652  1.00118.00      8
ATOM   4931  N    ALA C 178      76.021 126.584  30.505  1.00 86.35      7
ATOM   4932  CA   ALA C 178      77.059 127.180  31.330  1.00 86.34      6
ATOM   4933  CB   ALA C 178      77.411 126.249  32.471  1.00 60.35      6
ATOM   4934  C    ALA C 178      78.278 127.404  30.461  1.00 86.27      6
ATOM   4935  O    ALA C 178      78.648 128.541  30.163  1.00 86.17      8
ATOM   4936  N    SER C 179      78.888 126.297  30.051  1.00124.62      7
ATOM   4937  CA   SER C 179      80.078 126.325  29.215  1.00124.26      6
ATOM   4938  CB   SER C 179      81.081 125.283  29.720  1.00 83.67      6
ATOM   4939  OG   SER C 179      80.429 124.068  30.043  1.00 83.11      8
ATOM   4940  C    SER C 179      79.753 126.077  27.744  1.00124.15      6
ATOM   4941  O    SER C 179      79.622 124.932  27.308  1.00124.27      8
ATOM   4942  N    GLY C 180      79.628 127.164  26.986  1.00190.01      7
ATOM   4943  CA   GLY C 180      79.316 127.065  25.570  1.00188.94      6
ATOM   4944  C    GLY C 180      78.424 128.207  25.118  1.00187.48      6
ATOM   4945  O    GLY C 180      78.811 129.018  24.277  1.00187.77      8
ATOM   4946  N    VAL C 181      77.222 128.255  25.684  1.00101.50      7
ATOM   4947  CA   VAL C 181      76.236 129.290  25.391  1.00 98.68      6
ATOM   4948  CB   VAL C 181      76.881 130.682  25.309  1.00 85.33      6
ATOM   4949  CG1  VAL C 181      75.817 131.729  25.005  1.00 86.11      6
ATOM   4950  CG2  VAL C 181      77.590 130.999  26.616  1.00 85.64      6
ATOM   4951  C    VAL C 181      75.447 129.066  24.115  1.00 97.12      6
ATOM   4952  O    VAL C 181      75.970 129.208  23.016  1.00 98.03      8
ATOM   4953  N    VAL C 182      74.174 128.728  24.283  1.00 49.17      7
ATOM   4954  CA   VAL C 182      73.254 128.492  23.176  1.00 47.30      6
ATOM   4955  CB   VAL C 182      72.965 129.801  22.412  1.00 88.90      6
ATOM   4956  CG1  VAL C 182      71.625 129.697  21.703  1.00 88.65      6
ATOM   4957  CG2  VAL C 182      72.958 130.978  23.380  1.00 89.47      6
ATOM   4958  C    VAL C 182      73.693 127.414  22.184  1.00 45.25      6
ATOM   4959  O    VAL C 182      74.519 127.638  21.296  1.00 44.44      8
ATOM   4960  N    THR C 183      73.108 126.235  22.351  1.00 54.04      7
ATOM   4961  CA   THR C 183      73.398 125.098  21.499  1.00 52.78      6
ATOM   4962  CB   THR C 183      73.811 123.873  22.351  1.00 57.05      6
ATOM   4963  OG1  THR C 183      74.944 124.217  23.156  1.00 57.23      8
ATOM   4964  CG2  THR C 183      74.183 122.689  21.460  1.00 56.91      6
ATOM   4965  C    THR C 183      72.166 124.752  20.658  1.00 52.66      6
ATOM   4966  O    THR C 183      71.052 124.630  21.174  1.00 52.53      8
ATOM   4967  N    MET C 184      72.382 124.621  19.354  1.00119.00      7
ATOM   4968  CA   MET C 184      71.328 124.274  18.409  1.00118.73      6
ATOM   4969  CB   MET C 184      71.469 125.124  17.139  1.00 40.44      6
ATOM   4970  CG   MET C 184      70.168 125.682  16.555  1.00 36.98      6
ATOM   4971  SD   MET C 184      69.194 124.596  15.491  1.00 33.84     16
ATOM   4972  CE   MET C 184      69.676 125.144  13.911  1.00 34.18      6
ATOM   4973  C    MET C 184      71.586 122.805  18.088  1.00120.26      6
ATOM   4974  O    MET C 184      72.524 122.489  17.353  1.00121.69      8
ATOM   4975  N    LYS C 185      70.780 121.908  18.651  1.00 65.73      7
```

89

```
ATOM   4976  CA   LYS C 185      70.981 120.488  18.397  1.00 66.80       6
ATOM   4977  CB   LYS C 185      71.015 119.713  19.718  1.00112.77       6
ATOM   4978  CG   LYS C 185      70.001 120.169  20.737  1.00113.93       6
ATOM   4979  CD   LYS C 185      70.298 119.579  22.108  1.00114.95       6
ATOM   4980  CE   LYS C 185      69.505 120.306  23.185  1.00115.35       6
ATOM   4981  NZ   LYS C 185      69.807 119.831  24.558  1.00116.49       7
ATOM   4982  C    LYS C 185      69.997 119.834  17.435  1.00 67.41       6
ATOM   4983  O    LYS C 185      69.037 119.193  17.848  1.00 67.37       8
ATOM   4984  N    VAL C 186      70.244 119.999  16.144  1.00 63.54       7
ATOM   4985  CA   VAL C 186      69.397 119.387  15.146  1.00 65.54       6
ATOM   4986  CB   VAL C 186      69.662 119.980  13.767  1.00 44.28       6
ATOM   4987  CG1  VAL C 186      68.491 119.700  12.862  1.00 44.54       6
ATOM   4988  CG2  VAL C 186      69.889 121.475  13.879  1.00 43.86       6
ATOM   4989  C    VAL C 186      69.828 117.928  15.183  1.00 68.57       6
ATOM   4990  O    VAL C 186      71.011 117.645  15.366  1.00 70.21       8
ATOM   4991  N    ASN C 187      68.875 117.010  15.013  1.00 73.26       7
ATOM   4992  CA   ASN C 187      69.146 115.573  15.082  1.00 74.74       6
ATOM   4993  CB   ASN C 187      69.404 114.964  13.684  1.00 88.07       6
ATOM   4994  CG   ASN C 187      70.368 115.777  12.845  1.00 89.73       6
ATOM   4995  OD1  ASN C 187      71.370 116.274  13.345  1.00 89.09       8
ATOM   4996  ND2  ASN C 187      70.076 115.899  11.553  1.00 90.27       7
ATOM   4997  C    ASN C 187      70.304 115.281  16.035  1.00 75.73       6
ATOM   4998  O    ASN C 187      70.241 115.632  17.212  1.00 76.73       8
ATOM   4999  N    LYS C 188      71.362 114.657  15.539  1.00 89.99       7
ATOM   5000  CA   LYS C 188      72.506 114.332  16.388  1.00 91.65       6
ATOM   5001  CB   LYS C 188      72.981 112.904  16.084  1.00132.01       6
ATOM   5002  CG   LYS C 188      74.157 112.423  16.935  1.00133.24       6
ATOM   5003  CD   LYS C 188      74.602 111.012  16.538  1.00134.93       6
ATOM   5004  CE   LYS C 188      75.708 110.479  17.449  1.00136.59       6
ATOM   5005  NZ   LYS C 188      76.105 109.084  17.104  1.00137.85       7
ATOM   5006  C    LYS C 188      73.668 115.309  16.212  1.00 91.77       6
ATOM   5007  O    LYS C 188      74.685 114.964  15.611  1.00 91.94       8
ATOM   5008  N    ALA C 189      73.531 116.521  16.737  1.00100.63       7
ATOM   5009  CA   ALA C 189      74.601 117.500  16.599  1.00100.67       6
ATOM   5010  CB   ALA C 189      74.513 118.170  15.240  1.00100.93       6
ATOM   5011  C    ALA C 189      74.581 118.554  17.696  1.00100.94       6
ATOM   5012  O    ALA C 189      73.597 118.700  18.416  1.00101.43       8
ATOM   5013  N    LYS C 190      75.682 119.285  17.817  1.00124.83       7
ATOM   5014  CA   LYS C 190      75.814 120.340  18.812  1.00123.69       6
ATOM   5015  CB   LYS C 190      76.478 119.807  20.083  1.00205.82       6
ATOM   5016  CG   LYS C 190      76.921 120.904  21.045  1.00208.87       6
ATOM   5017  CD   LYS C 190      77.932 120.398  22.065  1.00208.87       6
ATOM   5018  CE   LYS C 190      78.485 121.547  22.902  1.00208.87       6
ATOM   5019  NZ   LYS C 190      79.555 121.110  23.844  1.00208.87       7
ATOM   5020  C    LYS C 190      76.690 121.426  18.217  1.00122.07       6
ATOM   5021  O    LYS C 190      77.913 121.319  18.244  1.00122.53       8
ATOM   5022  N    PHE C 191      76.074 122.467  17.673  1.00 55.07       7
ATOM   5023  CA   PHE C 191      76.843 123.553  17.083  1.00 52.94       6
ATOM   5024  CB   PHE C 191      76.650 123.570  15.568  1.00 54.01       6
ATOM   5025  CG   PHE C 191      75.211 123.720  15.134  1.00 53.37       6
ATOM   5026  CD1  PHE C 191      74.629 124.976  15.004  1.00 53.59       6
ATOM   5027  CD2  PHE C 191      74.444 122.606  14.836  1.00 53.02       6
ATOM   5028  CE1  PHE C 191      73.309 125.114  14.580  1.00 52.15       6
ATOM   5029  CE2  PHE C 191      73.130 122.743  14.415  1.00 52.41       6
ATOM   5030  CZ   PHE C 191      72.567 123.997  14.287  1.00 51.68       6
ATOM   5031  C    PHE C 191      76.433 124.890  17.663  1.00 51.32       6
```

```
ATOM   5032  O   PHE C 191      75.267 125.113  17.971  1.00 52.15      8
ATOM   5033  N   PRO C 192      77.392 125.798  17.840  1.00 38.88      7
ATOM   5034  CD  PRO C 192      78.832 125.719  17.536  1.00182.54      6
ATOM   5035  CA  PRO C 192      77.037 127.108  18.392  1.00 37.55      6
ATOM   5036  CB  PRO C 192      78.294 127.929  18.138  1.00182.33      6
ATOM   5037  CG  PRO C 192      79.385 126.904  18.294  1.00183.06      6
ATOM   5038  C   PRO C 192      75.819 127.660  17.652  1.00 35.77      6
ATOM   5039  O   PRO C 192      75.675 127.450  16.446  1.00 35.21      8
ATOM   5040  N   LEU C 193      74.955 128.378  18.362  1.00 53.82      7
ATOM   5041  CA  LEU C 193      73.741 128.907  17.743  1.00 51.81      6
ATOM   5042  CB  LEU C 193      72.665 129.118  18.815  1.00143.95      6
ATOM   5043  CG  LEU C 193      71.231 129.532  18.442  1.00143.18      6
ATOM   5044  CD1 LEU C 193      71.195 131.005  18.125  1.00143.77      6
ATOM   5045  CD2 LEU C 193      70.715 128.716  17.275  1.00143.01      6
ATOM   5046  C   LEU C 193      73.911 130.171  16.917  1.00 50.43      6
ATOM   5047  O   LEU C 193      73.050 130.499  16.108  1.00 50.27      8
ATOM   5048  N   VAL C 194      75.012 130.882  17.108  1.00107.98      7
ATOM   5049  CA  VAL C 194      75.244 132.103  16.342  1.00107.22      6
ATOM   5050  CB  VAL C 194      76.411 132.910  16.942  1.00 95.52      6
ATOM   5051  CG1 VAL C 194      76.099 134.399  16.883  1.00 94.22      6
ATOM   5052  CG2 VAL C 194      76.679 132.452  18.373  1.00 96.45      6
ATOM   5053  C   VAL C 194      75.591 131.726  14.897  1.00105.88      6
ATOM   5054  O   VAL C 194      75.346 132.489  13.958  1.00104.99      8
ATOM   5055  N   LEU C 195      76.150 130.527  14.743  1.00 69.97      7
ATOM   5056  CA  LEU C 195      76.571 129.995  13.454  1.00 67.27      6
ATOM   5057  CB  LEU C 195      77.160 128.603  13.636  1.00 20.86      6
ATOM   5058  CG  LEU C 195      77.876 128.058  12.409  1.00 19.45      6
ATOM   5059  CD1 LEU C 195      79.092 128.899  12.116  1.00 19.59      6
ATOM   5060  CD2 LEU C 195      78.288 126.624  12.668  1.00 19.54      6
ATOM   5061  C   LEU C 195      75.461 129.928  12.427  1.00 66.47      6
ATOM   5062  O   LEU C 195      75.594 130.463  11.332  1.00 66.59      8
ATOM   5063  N   LEU C 196      74.370 129.252  12.770  1.00 54.77      7
ATOM   5064  CA  LEU C 196      73.248 129.139  11.838  1.00 54.99      6
ATOM   5065  CB  LEU C 196      72.178 128.167  12.353  1.00 44.73      6
ATOM   5066  CG  LEU C 196      70.962 128.063  11.418  1.00 44.26      6
ATOM   5067  CD1 LEU C 196      71.049 126.752  10.631  1.00 43.98      6
ATOM   5068  CD2 LEU C 196      69.660 128.128  12.217  1.00 44.34      6
ATOM   5069  C   LEU C 196      72.613 130.506  11.660  1.00 55.65      6
ATOM   5070  O   LEU C 196      72.135 130.849  10.571  1.00 55.48      8
ATOM   5071  N   LEU C 197      72.604 131.275  12.744  1.00 52.15      7
ATOM   5072  CA  LEU C 197      72.028 132.600  12.711  1.00 52.47      6
ATOM   5073  CB  LEU C 197      72.115 133.264  14.077  1.00 16.86      6
ATOM   5074  CG  LEU C 197      71.039 132.812  15.054  1.00 14.03      6
ATOM   5075  CD1 LEU C 197      71.142 133.690  16.257  1.00 14.44      6
ATOM   5076  CD2 LEU C 197      69.645 132.920  14.450  1.00 13.87      6
ATOM   5077  C   LEU C 197      72.786 133.408  11.701  1.00 53.89      6
ATOM   5078  O   LEU C 197      72.196 134.052  10.834  1.00 54.03      8
ATOM   5079  N   ARG C 198      74.106 133.357  11.809  1.00 85.09      7
ATOM   5080  CA  ARG C 198      74.954 134.099  10.897  1.00 87.06      6
ATOM   5081  CB  ARG C 198      76.405 133.646  11.025  1.00 58.75      6
ATOM   5082  CG  ARG C 198      77.378 134.771  10.830  1.00 60.92      6
ATOM   5083  CD  ARG C 198      76.964 135.625   9.662  1.00 63.11      6
ATOM   5084  NE  ARG C 198      77.448 136.990   9.797  1.00 66.36      7
ATOM   5085  CZ  ARG C 198      77.167 137.966   8.940  1.00 68.73      6
ATOM   5086  NH1 ARG C 198      76.403 137.727   7.883  1.00 69.89      7
ATOM   5087  NH2 ARG C 198      77.649 139.185   9.143  1.00 71.74      7
```

91

ATOM	5088	C	ARG	C	198	74.462	133.854	9.482	1.00	88.21	6
ATOM	5089	O	ARG	C	198	74.060	134.787	8.788	1.00	88.90	8
ATOM	5090	N	VAL	C	199	74.491	132.591	9.067	1.00	65.98	7
ATOM	5091	CA	VAL	C	199	74.039	132.222	7.736	1.00	66.39	6
ATOM	5092	CB	VAL	C	199	73.850	130.711	7.578	1.00	50.32	6
ATOM	5093	CG1	VAL	C	199	73.030	130.435	6.322	1.00	50.25	6
ATOM	5094	CG2	VAL	C	199	75.209	130.015	7.489	1.00	50.24	6
ATOM	5095	C	VAL	C	199	72.702	132.865	7.504	1.00	67.56	6
ATOM	5096	O	VAL	C	199	72.542	133.669	6.597	1.00	69.04	8
ATOM	5097	N	LEU	C	200	71.738	132.503	8.338	1.00	64.55	7
ATOM	5098	CA	LEU	C	200	70.397	133.053	8.217	1.00	66.04	6
ATOM	5099	CB	LEU	C	200	69.554	132.642	9.442	1.00	77.26	6
ATOM	5100	CG	LEU	C	200	69.452	131.141	9.778	1.00	76.80	6
ATOM	5101	CD1	LEU	C	200	68.393	130.920	10.841	1.00	76.04	6
ATOM	5102	CD2	LEU	C	200	69.101	130.350	8.541	1.00	76.36	6
ATOM	5103	C	LEU	C	200	70.447	134.588	8.055	1.00	66.96	6
ATOM	5104	O	LEU	C	200	69.625	135.178	7.338	1.00	67.17	8
ATOM	5105	N	GLY	C	201	71.423	135.226	8.704	1.00	58.18	7
ATOM	5106	CA	GLY	C	201	71.554	136.671	8.593	1.00	59.18	6
ATOM	5107	C	GLY	C	201	71.935	137.417	9.861	1.00	58.83	6
ATOM	5108	O	GLY	C	201	72.865	138.220	9.857	1.00	58.22	8
ATOM	5109	N	TYR	C	202	71.197	137.172	10.939	1.00	74.72	7
ATOM	5110	CA	TYR	C	202	71.468	137.827	12.212	1.00	75.90	6
ATOM	5111	CB	TYR	C	202	70.633	137.206	13.331	1.00	67.76	6
ATOM	5112	CG	TYR	C	202	69.168	137.072	13.016	1.00	67.04	6
ATOM	5113	CD1	TYR	C	202	68.442	135.991	13.487	1.00	66.74	6
ATOM	5114	CE1	TYR	C	202	67.096	135.862	13.214	1.00	66.84	6
ATOM	5115	CD2	TYR	C	202	68.504	138.029	12.257	1.00	67.11	6
ATOM	5116	CE2	TYR	C	202	67.149	137.908	11.978	1.00	66.94	6
ATOM	5117	CZ	TYR	C	202	66.454	136.819	12.465	1.00	66.78	6
ATOM	5118	OH	TYR	C	202	65.109	136.678	12.225	1.00	67.58	8
ATOM	5119	C	TYR	C	202	72.927	137.597	12.517	1.00	77.83	6
ATOM	5120	O	TYR	C	202	73.511	136.618	12.059	1.00	77.94	8
ATOM	5121	N	ASP	C	203	73.511	138.507	13.283	1.00	101.22	7
ATOM	5122	CA	ASP	C	203	74.908	138.415	13.673	1.00	103.17	6
ATOM	5123	CB	ASP	C	203	75.796	138.016	12.476	1.00	128.66	6
ATOM	5124	CG	ASP	C	203	75.174	138.364	11.130	1.00	128.95	6
ATOM	5125	OD1	ASP	C	203	74.906	139.558	10.881	1.00	131.25	8
ATOM	5126	OD2	ASP	C	203	74.948	137.432	10.324	1.00	126.78	8
ATOM	5127	C	ASP	C	203	75.408	139.719	14.283	1.00	104.06	6
ATOM	5128	O	ASP	C	203	75.044	140.806	13.841	1.00	103.50	8
ATOM	5129	N	GLN	C	204	76.235	139.580	15.314	1.00	145.69	7
ATOM	5130	CA	GLN	C	204	76.832	140.703	16.027	1.00	146.33	6
ATOM	5131	CB	GLN	C	204	78.328	140.777	15.705	1.00	107.48	6
ATOM	5132	CG	GLN	C	204	79.041	141.959	16.342	1.00	107.70	6
ATOM	5133	CD	GLN	C	204	78.924	141.968	17.855	1.00	108.06	6
ATOM	5134	OE1	GLN	C	204	77.823	141.894	18.405	1.00	108.82	8
ATOM	5135	NE2	GLN	C	204	80.061	142.066	18.536	1.00	108.42	7
ATOM	5136	C	GLN	C	204	76.196	142.060	15.756	1.00	146.63	6
ATOM	5137	O	GLN	C	204	76.219	142.549	14.628	1.00	147.43	8
ATOM	5138	N	GLU	C	205	75.641	142.669	16.799	1.00	47.05	7
ATOM	5139	CA	GLU	C	205	75.018	143.986	16.687	1.00	47.71	6
ATOM	5140	CB	GLU	C	205	75.975	144.989	16.023	1.00	151.99	6
ATOM	5141	CG	GLU	C	205	77.376	145.056	16.634	1.00	154.19	6
ATOM	5142	CD	GLU	C	205	77.376	145.395	18.116	1.00	155.63	6
ATOM	5143	OE1	GLU	C	205	76.805	146.440	18.493	1.00	156.68	8

92

```
ATOM   5144   OE2  GLU C 205     77.958 144.620  18.905  1.00155.58   8
ATOM   5145   C    GLU C 205     73.708 143.954  15.910  1.00 47.75   6
ATOM   5146   O    GLU C 205     72.690 144.452  16.393  1.00 47.03   8
ATOM   5147   N    THR C 206     73.725 143.385  14.706  1.00142.36   7
ATOM   5148   CA   THR C 206     72.500 143.295  13.913  1.00143.43   6
ATOM   5149   CB   THR C 206     72.783 142.845  12.447  1.00106.22   6
ATOM   5150   OG1  THR C 206     71.713 143.282  11.600  1.00106.37   8
ATOM   5151   CG2  THR C 206     72.885 141.331  12.346  1.00105.31   6
ATOM   5152   C    THR C 206     71.636 142.255  14.621  1.00143.64   6
ATOM   5153   O    THR C 206     70.408 142.250  14.505  1.00143.65   8
ATOM   5154   N    LEU C 207     72.313 141.381  15.362  1.00 99.99   7
ATOM   5155   CA   LEU C 207     71.677 140.325  16.139  1.00100.36   6
ATOM   5156   CB   LEU C 207     72.574 139.084  16.179  1.00 70.78   6
ATOM   5157   CG   LEU C 207     72.173 137.930  17.102  1.00 70.90   6
ATOM   5158   CD1  LEU C 207     70.832 137.349  16.672  1.00 70.57   6
ATOM   5159   CD2  LEU C 207     73.257 136.865  17.058  1.00 71.36   6
ATOM   5160   C    LEU C 207     71.510 140.866  17.548  1.00100.14   6
ATOM   5161   O    LEU C 207     70.521 141.525  17.868  1.00100.30   8
ATOM   5162   N    VAL C 208     72.499 140.584  18.384  1.00 68.98   7
ATOM   5163   CA   VAL C 208     72.482 141.050  19.756  1.00 69.54   6
ATOM   5164   CB   VAL C 208     73.693 140.514  20.533  1.00156.59   6
ATOM   5165   CG1  VAL C 208     73.675 141.048  21.954  1.00157.26   6
ATOM   5166   CG2  VAL C 208     73.673 138.994  20.528  1.00157.20   6
ATOM   5167   C    VAL C 208     72.516 142.574  19.767  1.00 69.61   6
ATOM   5168   O    VAL C 208     72.927 143.204  18.789  1.00 69.37   8
ATOM   5169   N    ARG C 209     72.086 143.161  20.879  1.00102.05   7
ATOM   5170   CA   ARG C 209     72.062 144.607  21.000  1.00102.46   6
ATOM   5171   CB   ARG C 209     73.443 145.164  20.650  1.00 80.09   6
ATOM   5172   CG   ARG C 209     74.536 144.483  21.457  1.00 80.04   6
ATOM   5173   CD   ARG C 209     75.935 145.015  21.198  1.00 80.98   6
ATOM   5174   NE   ARG C 209     76.830 144.580  22.271  1.00 82.65   7
ATOM   5175   CZ   ARG C 209     78.128 144.861  22.351  1.00 83.21   6
ATOM   5176   NH1  ARG C 209     78.720 145.588  21.408  1.00 83.30   7
ATOM   5177   NH2  ARG C 209     78.831 144.424  23.391  1.00 82.93   7
ATOM   5178   C    ARG C 209     70.998 145.061  20.014  1.00103.27   6
ATOM   5179   O    ARG C 209     70.996 146.191  19.535  1.00103.27   8
ATOM   5180   N    GLU C 210     70.089 144.136  19.727  1.00118.85   7
ATOM   5181   CA   GLU C 210     68.984 144.358  18.810  1.00120.27   6
ATOM   5182   CB   GLU C 210     69.503 144.441  17.372  1.00180.96   6
ATOM   5183   CG   GLU C 210     68.659 145.317  16.459  1.00181.78   6
ATOM   5184   CD   GLU C 210     68.723 146.784  16.840  1.00182.17   6
ATOM   5185   OE1  GLU C 210     69.801 147.394  16.677  1.00182.81   8
ATOM   5186   OE2  GLU C 210     67.699 147.325  17.308  1.00182.12   8
ATOM   5187   C    GLU C 210     68.034 143.163  18.970  1.00120.32   6
ATOM   5188   O    GLU C 210     66.988 143.079  18.319  1.00120.10   8
ATOM   5189   N    LEU C 211     68.427 142.237  19.843  1.00116.71   7
ATOM   5190   CA   LEU C 211     67.643 141.041  20.155  1.00115.98   6
ATOM   5191   CB   LEU C 211     68.133 139.830  19.357  1.00135.44   6
ATOM   5192   CG   LEU C 211     67.869 138.488  20.064  1.00136.01   6
ATOM   5193   CD1  LEU C 211     66.374 138.278  20.222  1.00137.05   6
ATOM   5194   CD2  LEU C 211     68.488 137.344  19.284  1.00136.63   6
ATOM   5195   C    LEU C 211     67.794 140.719  21.633  1.00114.77   6
ATOM   5196   O    LEU C 211     66.827 140.715  22.398  1.00114.10   8
ATOM   5197   N    SER C 212     69.033 140.437  22.010  1.00109.57   7
ATOM   5198   CA   SER C 212     69.373 140.091  23.375  1.00109.17   6
ATOM   5199   CB   SER C 212     70.315 138.897  23.368  1.00 83.30   6
```

93

```
ATOM   5200  OG   SER C 212     71.413 139.150  22.509  1.00 83.23      8
ATOM   5201  C    SER C 212     70.036 141.259  24.084  1.00109.05      6
ATOM   5202  O    SER C 212     71.153 141.650  23.747  1.00109.05      8
ATOM   5203  N    ALA C 213     69.342 141.814  25.070  1.00 89.80      7
ATOM   5204  CA   ALA C 213     69.866 142.935  25.834  1.00 88.67      6
ATOM   5205  CB   ALA C 213     69.444 144.247  25.191  1.00119.25      6
ATOM   5206  C    ALA C 213     69.365 142.870  27.268  1.00 88.05      6
ATOM   5207  O    ALA C 213     70.162 142.791  28.203  1.00 87.84      8
ATOM   5208  N    TYR C 214     68.046 142.888  27.438  1.00129.04      7
ATOM   5209  CA   TYR C 214     67.468 142.842  28.771  1.00128.86      6
ATOM   5210  CB   TYR C 214     65.933 142.921  28.712  1.00 81.89      6
ATOM   5211  CG   TYR C 214     65.215 141.897  27.840  1.00 80.30      6
ATOM   5212  CD1  TYR C 214     65.777 140.642  27.553  1.00 79.07      6
ATOM   5213  CE1  TYR C 214     65.081 139.705  26.781  1.00 77.16      6
ATOM   5214  CD2  TYR C 214     63.939 142.175  27.332  1.00 79.27      6
ATOM   5215  CE2  TYR C 214     63.242 141.247  26.569  1.00 77.29      6
ATOM   5216  CZ   TYR C 214     63.815 140.022  26.294  1.00 76.39      6
ATOM   5217  OH   TYR C 214     63.124 139.140  25.501  1.00 75.89      8
ATOM   5218  C    TYR C 214     67.901 141.630  29.592  1.00128.94      6
ATOM   5219  O    TYR C 214     67.635 141.554  30.793  1.00129.75      8
ATOM   5220  N    GLY C 215     68.573 140.686  28.948  1.00 75.08      7
ATOM   5221  CA   GLY C 215     69.038 139.515  29.660  1.00 75.27      6
ATOM   5222  C    GLY C 215     70.350 139.026  29.079  1.00 75.58      6
ATOM   5223  O    GLY C 215     70.350 138.096  28.268  1.00 76.28      8
ATOM   5224  N    ASP C 216     71.458 139.648  29.489  1.00 85.58      7
ATOM   5225  CA   ASP C 216     72.804 139.300  29.007  1.00 85.27      6
ATOM   5226  CB   ASP C 216     73.791 139.261  30.174  1.00131.92      6
ATOM   5227  CG   ASP C 216     73.854 140.569  30.922  1.00132.48      6
ATOM   5228  OD1  ASP C 216     72.816 140.969  31.485  1.00132.94      8
ATOM   5229  OD2  ASP C 216     74.937 141.197  30.945  1.00132.30      8
ATOM   5230  C    ASP C 216     72.876 137.972  28.266  1.00 84.97      6
ATOM   5231  O    ASP C 216     72.381 137.829  27.146  1.00 84.91      8
ATOM   5232  N    LEU C 217     73.514 136.998  28.894  1.00 77.58      7
ATOM   5233  CA   LEU C 217     73.623 135.687  28.289  1.00 77.89      6
ATOM   5234  CB   LEU C 217     72.237 135.044  28.190  1.00 80.27      6
ATOM   5235  CG   LEU C 217     71.155 135.447  29.201  1.00 79.36      6
ATOM   5236  CD1  LEU C 217     69.855 134.737  28.857  1.00 78.34      6
ATOM   5237  CD2  LEU C 217     71.590 135.106  30.617  1.00 78.99      6
ATOM   5238  C    LEU C 217     74.189 135.836  26.887  1.00 78.60      6
ATOM   5239  O    LEU C 217     74.174 134.882  26.111  1.00 79.02      8
ATOM   5240  N    VAL C 218     74.698 137.022  26.562  1.00130.42      7
ATOM   5241  CA   VAL C 218     75.226 137.263  25.225  1.00131.09      6
ATOM   5242  CB   VAL C 218     74.759 138.612  24.678  1.00 90.38      6
ATOM   5243  CG1  VAL C 218     75.311 138.810  23.279  1.00 90.04      6
ATOM   5244  CG2  VAL C 218     73.247 138.664  24.660  1.00 89.65      6
ATOM   5245  C    VAL C 218     76.730 137.185  25.009  1.00131.97      6
ATOM   5246  O    VAL C 218     77.164 136.633  24.000  1.00132.21      8
ATOM   5247  N    GLN C 219     77.527 137.744  25.916  1.00152.90      7
ATOM   5248  CA   GLN C 219     78.980 137.695  25.747  1.00153.25      6
ATOM   5249  CB   GLN C 219     79.700 137.907  27.080  1.00136.00      6
ATOM   5250  CG   GLN C 219     79.550 139.285  27.687  1.00135.38      6
ATOM   5251  CD   GLN C 219     80.500 139.495  28.856  1.00136.08      6
ATOM   5252  OE1  GLN C 219     81.719 139.563  28.675  1.00136.00      8
ATOM   5253  NE2  GLN C 219     79.948 139.586  30.063  1.00136.33      7
ATOM   5254  C    GLN C 219     79.402 136.345  25.168  1.00153.29      6
ATOM   5255  O    GLN C 219     80.380 136.250  24.424  1.00153.73      8
```

94

```
ATOM   5256  N    GLY C 220    78.649 135.305  25.516  1.00 75.93    7
ATOM   5257  CA   GLY C 220    78.941 133.974  25.027  1.00 77.21    6
ATOM   5258  C    GLY C 220    78.353 133.704  23.653  1.00 78.18    8
ATOM   5259  O    GLY C 220    78.902 132.907  22.886  1.00 78.07    8
ATOM   5260  N    LEU C 221    77.229 134.342  23.338  1.00 83.09    7
ATOM   5261  CA   LEU C 221    76.611 134.157  22.029  1.00 84.37    6
ATOM   5262  CB   LEU C 221    75.195 134.734  22.011  1.00 57.92    6
ATOM   5263  CG   LEU C 221    74.439 134.511  20.695  1.00 57.02    6
ATOM   5264  CD1  LEU C 221    73.967 133.054  20.628  1.00 56.56    6
ATOM   5265  CD2  LEU C 221    73.259 135.474  20.585  1.00 56.14    6
ATOM   5266  C    LEU C 221    77.476 134.892  21.003  1.00 85.81    6
ATOM   5267  O    LEU C 221    77.161 134.943  19.812  1.00 86.07    8
ATOM   5268  N    LEU C 222    78.578 135.460  21.479  1.00 56.83    7
ATOM   5269  CA   LEU C 222    79.482 136.193  20.615  1.00 58.88    6
ATOM   5270  CB   LEU C 222    79.536 137.662  21.056  1.00 71.27    6
ATOM   5271  CG   LEU C 222    78.229 138.468  20.951  1.00 70.06    6
ATOM   5272  CD1  LEU C 222    78.407 139.815  21.614  1.00 69.38    6
ATOM   5273  CD2  LEU C 222    77.833 138.649  19.497  1.00 68.39    6
ATOM   5274  C    LEU C 222    80.888 135.593  20.583  1.00 61.05    6
ATOM   5275  O    LEU C 222    81.616 135.797  19.620  1.00 62.44    8
ATOM   5276  N    ASP C 223    81.270 134.848  21.617  1.00149.38    7
ATOM   5277  CA   ASP C 223    82.604 134.236  21.662  1.00151.90    6
ATOM   5278  CB   ASP C 223    82.637 133.082  22.671  1.00208.87    6
ATOM   5279  CG   ASP C 223    82.824 133.561  24.099  1.00208.87    6
ATOM   5280  OD1  ASP C 223    83.824 134.261  24.364  1.00208.87    8
ATOM   5281  OD2  ASP C 223    81.975 133.236  24.956  1.00208.87    8
ATOM   5282  C    ASP C 223    83.092 133.731  20.303  1.00152.75    6
ATOM   5283  O    ASP C 223    84.259 133.916  19.950  1.00152.57    8
ATOM   5284  N    GLU C 224    82.202 133.089  19.549  1.00 84.62    7
ATOM   5285  CA   GLU C 224    82.549 132.576  18.228  1.00 86.27    6
ATOM   5286  CB   GLU C 224    81.940 131.186  18.019  1.00208.87    6
ATOM   5287  CG   GLU C 224    82.704 130.066  18.706  1.00208.87    6
ATOM   5288  CD   GLU C 224    84.113 129.907  18.162  1.00208.87    6
ATOM   5289  OE1  GLU C 224    84.265 129.623  16.955  1.00208.87    8
ATOM   5290  OE2  GLU C 224    85.073 130.069  18.943  1.00208.87    8
ATOM   5291  C    GLU C 224    82.085 133.520  17.117  1.00 86.52    6
ATOM   5292  O    GLU C 224    81.729 133.075  16.020  1.00 85.93    8
ATOM   5293  N    ALA C 225    82.091 134.822  17.406  1.00175.86    7
ATOM   5294  CA   ALA C 225    81.689 135.831  16.426  1.00176.34    6
ATOM   5295  CB   ALA C 225    81.941 137.230  16.961  1.00 78.67    6
ATOM   5296  C    ALA C 225    82.538 135.586  15.199  1.00176.29    6
ATOM   5297  O    ALA C 225    82.205 136.013  14.095  1.00176.67    8
ATOM   5298  N    VAL C 226    83.657 134.904  15.419  1.00 98.39    7
ATOM   5299  CA   VAL C 226    84.548 134.549  14.341  1.00 97.87    6
ATOM   5300  CB   VAL C 226    85.628 133.561  14.831  1.00 88.32    6
ATOM   5301  CG1  VAL C 226    86.463 134.211  15.916  1.00 88.30    6
ATOM   5302  CG2  VAL C 226    84.985 132.302  15.377  1.00 88.42    6
ATOM   5303  C    VAL C 226    83.635 133.881  13.319  1.00 97.91    6
ATOM   5304  O    VAL C 226    83.751 134.119  12.119  1.00 98.63    8
ATOM   5305  N    LEU C 227    82.709 133.060  13.814  1.00138.81    7
ATOM   5306  CA   LEU C 227    81.743 132.375  12.964  1.00139.05    6
ATOM   5307  CB   LEU C 227    80.978 131.303  13.755  1.00116.19    6
ATOM   5308  CG   LEU C 227    81.749 130.059  14.213  1.00117.20    6
ATOM   5309  CD1  LEU C 227    80.814 129.071  14.911  1.00116.00    6
ATOM   5310  CD2  LEU C 227    82.392 129.404  13.005  1.00117.61    6
ATOM   5311  C    LEU C 227    80.763 133.415  12.437  1.00138.64    6
```

```
ATOM   5312  O    LEU C 227      80.368 133.379  11.275  1.00138.91      8
ATOM   5313  N    ALA C 228      80.384 134.346  13.306  1.00 65.37      7
ATOM   5314  CA   ALA C 228      79.458 135.424  12.952  1.00 65.33      6
ATOM   5315  CB   ALA C 228      78.777 135.959  14.211  1.00126.31      6
ATOM   5316  C    ALA C 228      80.143 136.578  12.213  1.00 65.44      6
ATOM   5317  O    ALA C 228      79.798 137.742  12.416  1.00 65.01      8
ATOM   5318  N    MET C 229      81.103 136.245  11.353  1.00105.03      7
ATOM   5319  CA   MET C 229      81.842 137.245  10.588  1.00104.42      6
ATOM   5320  CB   MET C 229      83.326 137.179  10.950  1.00208.87      6
ATOM   5321  CG   MET C 229      83.622 137.635  12.361  1.00208.87      6
ATOM   5322  SD   MET C 229      82.935 139.271  12.666  1.00208.87     16
ATOM   5323  CE   MET C 229      84.185 140.325  11.847  1.00208.87      6
ATOM   5324  C    MET C 229      81.686 137.148   9.068  1.00102.40      6
ATOM   5325  O    MET C 229      82.146 138.029   8.341  1.00101.26      8
ATOM   5326  N    ARG C 230      81.046 136.085   8.590  1.00 66.08      7
ATOM   5327  CA   ARG C 230      80.836 135.900   7.157  1.00 65.23      6
ATOM   5328  CB   ARG C 230      82.188 135.731   6.454  1.00105.16      6
ATOM   5329  CG   ARG C 230      83.196 134.900   7.239  1.00106.81      6
ATOM   5330  CD   ARG C 230      84.492 134.702   6.457  1.00107.45      6
ATOM   5331  NE   ARG C 230      85.550 134.118   7.281  1.00108.11      7
ATOM   5332  CZ   ARG C 230      86.117 134.732   8.316  1.00108.21      6
ATOM   5333  NH1  ARG C 230      85.732 135.953   8.659  1.00107.49      7
ATOM   5334  NH2  ARG C 230      87.069 134.123   9.010  1.00109.17      7
ATOM   5335  C    ARG C 230      79.937 134.708   6.824  1.00 63.26      6
ATOM   5336  O    ARG C 230      80.314 133.558   7.054  1.00 63.36      8
ATOM   5337  N    PRO C 231      78.733 134.962   6.275  1.00140.24      7
ATOM   5338  CD   PRO C 231      78.185 136.252   5.826  1.00 42.06      6
ATOM   5339  CA   PRO C 231      77.822 133.864   5.926  1.00138.58      6
ATOM   5340  CB   PRO C 231      76.584 134.590   5.399  1.00 40.00      6
ATOM   5341  CG   PRO C 231      77.154 135.818   4.804  1.00 41.60      6
ATOM   5342  C    PRO C 231      78.474 132.999   4.866  1.00137.86      6
ATOM   5343  O    PRO C 231      79.656 133.162   4.589  1.00139.31      8
ATOM   5344  N    GLU C 232      77.715 132.091   4.267  1.00 77.90      7
ATOM   5345  CA   GLU C 232      78.268 131.224   3.231  1.00 75.34      6
ATOM   5346  CB   GLU C 232      78.744 132.063   2.036  1.00 99.87      6
ATOM   5347  CG   GLU C 232      79.165 131.268   0.789  1.00100.05      6
ATOM   5348  CD   GLU C 232      80.578 130.706   0.863  1.00 99.76      6
ATOM   5349  OE1  GLU C 232      80.817 129.769   1.652  1.00 99.37      8
ATOM   5350  OE2  GLU C 232      81.451 131.208   0.122  1.00100.08      8
ATOM   5351  C    GLU C 232      79.435 130.438   3.810  1.00 73.40      6
ATOM   5352  O    GLU C 232      79.314 129.245   4.083  1.00 73.09      8
ATOM   5353  N    GLU C 233      80.569 131.110   3.985  1.00 73.71      7
ATOM   5354  CA   GLU C 233      81.753 130.488   4.561  1.00 71.34      6
ATOM   5355  CB   GLU C 233      82.771 131.564   4.953  1.00 69.36      6
ATOM   5356  CG   GLU C 233      84.231 131.127   4.910  1.00 67.28      6
ATOM   5357  CD   GLU C 233      84.578 130.039   5.918  1.00 66.29      6
ATOM   5358  OE1  GLU C 233      84.483 130.293   7.137  1.00 65.59      8
ATOM   5359  OE2  GLU C 233      84.957 128.927   5.493  1.00 66.13      8
ATOM   5360  C    GLU C 233      81.224 129.791   5.803  1.00 70.23      6
ATOM   5361  O    GLU C 233      81.790 128.802   6.274  1.00 70.93      8
ATOM   5362  N    ALA C 234      80.107 130.323   6.302  1.00 99.90      7
ATOM   5363  CA   ALA C 234      79.418 129.814   7.483  1.00 97.62      6
ATOM   5364  CB   ALA C 234      78.408 130.846   7.971  1.00 76.06      6
ATOM   5365  C    ALA C 234      78.719 128.473   7.229  1.00 95.90      6
ATOM   5366  O    ALA C 234      79.022 127.481   7.899  1.00 95.75      8
ATOM   5367  N    MET C 235      77.783 128.442   6.278  1.00 65.06      7
```

96

```
ATOM   5368  CA   MET C 235      77.074 127.203   5.954  1.00 62.59      6
ATOM   5369  CB   MET C 235      76.397 127.298   4.594  1.00 48.98      6
ATOM   5370  CG   MET C 235      75.708 128.597   4.319  1.00 48.48      6
ATOM   5371  SD   MET C 235      74.890 128.508   2.715  1.00 48.43     16
ATOM   5372  CE   MET C 235      73.125 128.459   3.250  1.00 47.57      6
ATOM   5373  C    MET C 235      78.097 126.075   5.879  1.00 62.17      6
ATOM   5374  O    MET C 235      77.866 124.969   6.374  1.00 61.98      8
ATOM   5375  N    VAL C 236      79.230 126.374   5.247  1.00 38.65      7
ATOM   5376  CA   VAL C 236      80.299 125.405   5.082  1.00 36.92      6
ATOM   5377  CB   VAL C 236      81.394 125.946   4.140  1.00 13.87      6
ATOM   5378  CG1  VAL C 236      82.629 125.036   4.205  1.00 13.87      6
ATOM   5379  CG2  VAL C 236      80.836 126.039   2.695  1.00 13.87      6
ATOM   5380  C    VAL C 236      80.909 124.982   6.409  1.00 37.57      6
ATOM   5381  O    VAL C 236      81.212 123.811   6.596  1.00 37.03      8
ATOM   5382  N    ARG C 237      81.097 125.917   7.331  1.00101.36      7
ATOM   5383  CA   ARG C 237      81.646 125.545   8.625  1.00103.24      6
ATOM   5384  CB   ARG C 237      81.927 126.786   9.464  1.00117.69      6
ATOM   5385  CG   ARG C 237      82.957 127.707   8.842  1.00119.98      6
ATOM   5386  CD   ARG C 237      84.320 127.050   8.754  1.00121.93      6
ATOM   5387  NE   ARG C 237      85.291 127.934   8.115  1.00125.29      7
ATOM   5388  CZ   ARG C 237      86.586 127.662   7.993  1.00126.39      6
ATOM   5389  NH1  ARG C 237      87.075 126.526   8.471  1.00127.88      7
ATOM   5390  NH2  ARG C 237      87.393 128.525   7.390  1.00126.26      7
ATOM   5391  C    ARG C 237      80.608 124.657   9.305  1.00103.63      6
ATOM   5392  O    ARG C 237      80.951 123.662   9.943  1.00104.18      8
ATOM   5393  N    LEU C 238      79.337 125.022   9.157  1.00 56.15      7
ATOM   5394  CA   LEU C 238      78.240 124.239   9.723  1.00 56.26      6
ATOM   5395  CB   LEU C 238      76.903 124.969   9.511  1.00 20.59      6
ATOM   5396  CG   LEU C 238      75.548 124.426   9.996  1.00 18.61      6
ATOM   5397  CD1  LEU C 238      75.416 124.515  11.505  1.00 17.53      6
ATOM   5398  CD2  LEU C 238      74.454 125.252   9.356  1.00 17.41      6
ATOM   5399  C    LEU C 238      78.239 122.899   8.977  1.00 57.78      6
ATOM   5400  O    LEU C 238      78.290 121.838   9.594  1.00 57.62      8
ATOM   5401  N    PHE C 239      78.194 122.951   7.648  1.00 50.91      7
ATOM   5402  CA   PHE C 239      78.203 121.734   6.844  1.00 52.69      6
ATOM   5403  CB   PHE C 239      78.419 122.071   5.367  1.00 84.65      6
ATOM   5404  CG   PHE C 239      77.904 121.022   4.414  1.00 84.64      6
ATOM   5405  CD1  PHE C 239      76.800 121.287   3.594  1.00 85.15      6
ATOM   5406  CD2  PHE C 239      78.509 119.773   4.333  1.00 83.76      6
ATOM   5407  CE1  PHE C 239      76.307 120.323   2.707  1.00 85.25      6
ATOM   5408  CE2  PHE C 239      78.025 118.799   3.450  1.00 83.75      6
ATOM   5409  CZ   PHE C 239      76.920 119.076   2.636  1.00 84.76      6
ATOM   5410  C    PHE C 239      79.358 120.871   7.342  1.00 54.23      6
ATOM   5411  O    PHE C 239      79.191 119.690   7.643  1.00 53.69      8
ATOM   5412  N    THR C 240      80.531 121.486   7.441  1.00 49.83      7
ATOM   5413  CA   THR C 240      81.729 120.801   7.891  1.00 53.38      6
ATOM   5414  CB   THR C 240      82.966 121.696   7.735  1.00 75.67      6
ATOM   5415  OG1  THR C 240      83.025 122.197   6.392  1.00 76.24      8
ATOM   5416  CG2  THR C 240      84.234 120.906   8.016  1.00 75.21      6
ATOM   5417  C    THR C 240      81.583 120.389   9.344  1.00 56.09      6
ATOM   5418  O    THR C 240      82.509 119.860   9.945  1.00 56.86      8
ATOM   5419  N    LEU C 241      80.412 120.642   9.912  1.00 88.04      7
ATOM   5420  CA   LEU C 241      80.148 120.260  11.290  1.00 92.43      6
ATOM   5421  CB   LEU C 241      79.587 121.432  12.087  1.00 69.60      6
ATOM   5422  CG   LEU C 241      80.587 122.299  12.847  1.00 68.57      6
ATOM   5423  CD1  LEU C 241      79.844 123.466  13.468  1.00 68.16      6
```

97

```
ATOM   5424  CD2 LEU C 241      81.283 121.469  13.917  1.00 68.18      6
ATOM   5425  C   LEU C 241      79.156 119.113  11.286  1.00 96.01      8
ATOM   5426  O   LEU C 241      78.653 118.698  12.333  1.00 96.09      8
ATOM   5427  N   LEU C 242      78.873 118.623  10.083  1.00 88.50      7
ATOM   5428  CA  LEU C 242      77.969 117.499   9.881  1.00 92.67      6
ATOM   5429  CB  LEU C 242      76.785 117.901   8.990  1.00161.63      6
ATOM   5430  CG  LEU C 242      75.503 118.336   9.717  1.00162.36      6
ATOM   5431  CD1 LEU C 242      75.769 119.543  10.604  1.00162.25      6
ATOM   5432  CD2 LEU C 242      74.425 118.650   8.692  1.00162.82      6
ATOM   5433  C   LEU C 242      78.739 116.336   9.255  1.00 95.23      6
ATOM   5434  O   LEU C 242      79.088 116.353   8.070  1.00 96.06      8
ATOM   5435  N   ARG C 243      79.011 115.340  10.090  1.00208.87      7
ATOM   5436  CA  ARG C 243      79.737 114.140   9.700  1.00208.87      6
ATOM   5437  CB  ARG C 243      79.738 113.152  10.874  1.00203.59      6
ATOM   5438  CG  ARG C 243      80.592 111.913  10.686  1.00206.59      6
ATOM   5439  CD  ARG C 243      80.534 111.041  11.922  1.00208.78      6
ATOM   5440  NE  ARG C 243      81.468 109.924  11.856  1.00208.87      7
ATOM   5441  CZ  ARG C 243      81.642 109.043  12.836  1.00208.87      6
ATOM   5442  NH1 ARG C 243      80.942 109.152  13.958  1.00208.87      7
ATOM   5443  NH2 ARG C 243      82.519 108.057  12.699  1.00208.87      7
ATOM   5444  C   ARG C 243      79.086 113.497   8.477  1.00208.87      6
ATOM   5445  O   ARG C 243      77.873 113.592   8.289  1.00208.87      8
ATOM   5446  N   PRO C 244      79.890 112.842   7.621  1.00168.13      7
ATOM   5447  CD  PRO C 244      79.366 111.947   6.570  1.00208.87      6
ATOM   5448  CA  PRO C 244      81.341 112.685   7.754  1.00167.55      6
ATOM   5449  CB  PRO C 244      81.594 111.349   7.073  1.00208.87      6
ATOM   5450  CG  PRO C 244      80.636 111.410   5.925  1.00208.87      6
ATOM   5451  C   PRO C 244      82.105 113.829   7.092  1.00167.24      6
ATOM   5452  O   PRO C 244      81.603 114.949   6.984  1.00167.12      8
ATOM   5453  N   GLY C 245      83.321 113.533   6.649  1.00141.10      7
ATOM   5454  CA  GLY C 245      84.130 114.541   5.997  1.00140.05      6
ATOM   5455  C   GLY C 245      83.762 114.705   4.536  1.00138.99      6
ATOM   5456  O   GLY C 245      84.517 114.311   3.649  1.00139.36      8
ATOM   5457  N   ASP C 246      82.587 115.270   4.282  1.00 91.31      7
ATOM   5458  CA  ASP C 246      82.136 115.501   2.915  1.00 90.57      6
ATOM   5459  CB  ASP C 246      80.625 115.749   2.900  1.00180.76      6
ATOM   5460  CG  ASP C 246      79.827 114.481   3.112  1.00181.48      6
ATOM   5461  OD1 ASP C 246      80.029 113.518   2.343  1.00181.22      8
ATOM   5462  OD2 ASP C 246      78.993 114.449   4.041  1.00181.84      8
ATOM   5463  C   ASP C 246      82.883 116.710   2.339  1.00 89.74      6
ATOM   5464  O   ASP C 246      83.858 117.180   2.927  1.00 90.14      8
ATOM   5465  N   PRO C 247      82.446 117.227   1.182  1.00114.04      7
ATOM   5466  CD  PRO C 247      81.519 116.670   0.181  1.00194.03      6
ATOM   5467  CA  PRO C 247      83.163 118.382   0.634  1.00113.17      6
ATOM   5468  CB  PRO C 247      82.840 118.302  -0.852  1.00194.32      6
ATOM   5469  CG  PRO C 247      81.437 117.785  -0.839  1.00194.34      6
ATOM   5470  C   PRO C 247      82.747 119.722   1.238  1.00111.52      6
ATOM   5471  O   PRO C 247      81.607 120.157   1.066  1.00111.58      8
ATOM   5472  N   PRO C 248      83.668 120.397   1.955  1.00 92.49      7
ATOM   5473  CD  PRO C 248      84.997 119.930   2.389  1.00 76.77      6
ATOM   5474  CA  PRO C 248      83.357 121.692   2.566  1.00 90.62      6
ATOM   5475  CB  PRO C 248      84.686 122.105   3.185  1.00 75.12      6
ATOM   5476  CG  PRO C 248      85.268 120.801   3.596  1.00 75.76      6
ATOM   5477  C   PRO C 248      82.867 122.693   1.530  1.00 88.92      6
ATOM   5478  O   PRO C 248      82.450 123.794   1.862  1.00 89.53      8
ATOM   5479  N   LYS C 249      82.917 122.301   0.267  1.00 61.79      7
```

98

```
ATOM   5480  CA  LYS C 249     82.472 123.171  -0.805  1.00 59.51      6
ATOM   5481  CB  LYS C 249     82.371 122.373  -2.107  1.00157.18      6
ATOM   5482  CG  LYS C 249     82.144 123.214  -3.355  1.00158.15      6
ATOM   5483  CD  LYS C 249     82.300 122.371  -4.617  1.00157.76      6
ATOM   5484  CE  LYS C 249     82.232 123.225  -5.873  1.00157.27      6
ATOM   5485  NZ  LYS C 249     82.505 122.427  -7.101  1.00156.24      7
ATOM   5486  C   LYS C 249     81.124 123.798  -0.468  1.00 58.08      6
ATOM   5487  O   LYS C 249     80.211 123.108  -0.023  1.00 57.68      8
ATOM   5488  N   LYS C 250     81.028 125.112  -0.661  1.00 52.07      7
ATOM   5489  CA  LYS C 250     79.811 125.902  -0.424  1.00 51.13      6
ATOM   5490  CB  LYS C 250     80.003 127.283  -1.044  1.00 84.19      6
ATOM   5491  CG  LYS C 250     80.498 127.165  -2.489  1.00 84.65      6
ATOM   5492  CD  LYS C 250     80.484 128.462  -3.273  1.00 84.80      6
ATOM   5493  CE  LYS C 250     80.930 128.190  -4.711  1.00 84.35      6
ATOM   5494  NZ  LYS C 250     80.889 129.393  -5.590  1.00 85.51      7
ATOM   5495  C   LYS C 250     78.621 125.230  -1.113  1.00 49.81      6
ATOM   5496  O   LYS C 250     78.672 124.996  -2.319  1.00 49.67      8
ATOM   5497  N   ASP C 251     77.544 124.940  -0.384  1.00208.87      7
ATOM   5498  CA  ASP C 251     76.402 124.280  -1.018  1.00208.87      6
ATOM   5499  CB  ASP C 251     76.330 122.816  -0.574  1.00 84.58      6
ATOM   5500  CG  ASP C 251     76.918 121.878  -1.606  1.00 84.74      6
ATOM   5501  OD1 ASP C 251     76.399 121.850  -2.741  1.00 83.90      8
ATOM   5502  OD2 ASP C 251     77.902 121.177  -1.293  1.00 85.22      8
ATOM   5503  C   ASP C 251     75.005 124.887  -0.930  1.00208.87      6
ATOM   5504  O   ASP C 251     74.339 125.020  -1.956  1.00208.87      8
ATOM   5505  N   LYS C 252     74.553 125.244   0.271  1.00 89.65      7
ATOM   5506  CA  LYS C 252     73.211 125.805   0.443  1.00 86.82      6
ATOM   5507  CB  LYS C 252     72.848 126.755  -0.715  1.00 69.45      6
ATOM   5508  CG  LYS C 252     71.372 127.168  -0.758  1.00 69.86      6
ATOM   5509  CD  LYS C 252     71.070 128.283  -1.777  1.00 69.45      6
ATOM   5510  CE  LYS C 252     69.607 128.763  -1.668  1.00 69.19      6
ATOM   5511  NZ  LYS C 252     69.233 129.903  -2.562  1.00 67.70      7
ATOM   5512  C   LYS C 252     72.217 124.648   0.495  1.00 85.53      6
ATOM   5513  O   LYS C 252     71.167 124.741   1.127  1.00 85.56      8
ATOM   5514  N   ALA C 253     72.562 123.557  -0.179  1.00104.71      7
ATOM   5515  CA  ALA C 253     71.717 122.373  -0.200  1.00102.89      6
ATOM   5516  CB  ALA C 253     72.163 121.442  -1.294  1.00 66.25      6
ATOM   5517  C   ALA C 253     71.848 121.695   1.156  1.00101.99      6
ATOM   5518  O   ALA C 253     72.812 121.965   1.881  1.00103.16      8
ATOM   5519  N   LEU C 254     70.898 120.814   1.486  1.00 67.47      7
ATOM   5520  CA  LEU C 254     70.883 120.112   2.779  1.00 64.85      6
ATOM   5521  CB  LEU C 254     72.302 119.723   3.209  1.00 30.25      6
ATOM   5522  CG  LEU C 254     72.776 119.888   4.649  1.00 28.08      6
ATOM   5523  CD1 LEU C 254     71.826 119.234   5.637  1.00 27.43      6
ATOM   5524  CD2 LEU C 254     74.148 119.271   4.739  1.00 27.06      6
ATOM   5525  C   LEU C 254     70.292 121.095   3.760  1.00 64.57      6
ATOM   5526  O   LEU C 254     69.409 120.749   4.542  1.00 64.88      8
ATOM   5527  N   ALA C 255     70.823 122.318   3.710  1.00 46.43      7
ATOM   5528  CA  ALA C 255     70.357 123.440   4.510  1.00 45.16      6
ATOM   5529  CB  ALA C 255     71.494 124.433   4.786  1.00 13.87      6
ATOM   5530  C   ALA C 255     69.338 124.024   3.539  1.00 45.33      6
ATOM   5531  O   ALA C 255     68.816 125.113   3.713  1.00 46.26      8
ATOM   5532  N   TYR C 256     69.089 123.253   2.490  1.00 49.19      7
ATOM   5533  CA  TYR C 256     68.123 123.574   1.455  1.00 49.69      6
ATOM   5534  CB  TYR C 256     68.525 122.884   0.152  1.00113.70      6
ATOM   5535  CG  TYR C 256     68.211 123.616  -1.137  1.00116.52      6
```

99

```
ATOM    5536  CD1 TYR C 256      69.006 124.680  -1.570  1.00117.43      6
ATOM    5537  CE1 TYR C 256      68.790 125.288  -2.814  1.00117.60      6
ATOM    5538  CD2 TYR C 256      67.179 123.183  -1.974  1.00117.49      6
ATOM    5539  CE2 TYR C 256      66.952 123.783  -3.219  1.00117.99      6
ATOM    5540  CZ  TYR C 256      67.764 124.832  -3.635  1.00117.79      6
ATOM    5541  OH  TYR C 256      67.572 125.402  -4.878  1.00116.97      8
ATOM    5542  C   TYR C 256      66.885 122.887   2.013  1.00 49.09      6
ATOM    5543  O   TYR C 256      65.848 122.828   1.369  1.00 48.84      8
ATOM    5544  N   LEU C 257      67.043 122.339   3.216  1.00 77.53      7
ATOM    5545  CA  LEU C 257      66.002 121.617   3.947  1.00 77.28      6
ATOM    5546  CB  LEU C 257      66.437 120.174   4.204  1.00116.17      6
ATOM    5547  CG  LEU C 257      66.891 119.307   3.028  1.00117.61      6
ATOM    5548  CD1 LEU C 257      67.935 118.302   3.512  1.00118.96      6
ATOM    5549  CD2 LEU C 257      65.683 118.612   2.400  1.00116.94      6
ATOM    5550  C   LEU C 257      65.889 122.323   5.281  1.00 76.11      6
ATOM    5551  O   LEU C 257      65.799 123.544   5.314  1.00 76.74      8
ATOM    5552  N   PHE C 258      65.934 121.543   6.366  1.00 66.70      7
ATOM    5553  CA  PHE C 258      65.856 122.057   7.739  1.00 65.52      6
ATOM    5554  CB  PHE C 258      67.227 122.053   8.407  1.00 60.51      6
ATOM    5555  CG  PHE C 258      67.903 120.721   8.405  1.00 61.13      6
ATOM    5556  CD1 PHE C 258      68.146 120.052   7.216  1.00 60.44      6
ATOM    5557  CD2 PHE C 258      68.352 120.159   9.594  1.00 61.98      6
ATOM    5558  CE1 PHE C 258      68.829 118.853   7.213  1.00 60.93      6
ATOM    5559  CE2 PHE C 258      69.041 118.954   9.601  1.00 61.63      6
ATOM    5560  CZ  PHE C 258      69.280 118.302   8.413  1.00 61.42      6
ATOM    5561  C   PHE C 258      65.349 123.479   7.735  1.00 65.21      6
ATOM    5562  O   PHE C 258      65.923 124.359   8.385  1.00 65.27      8
ATOM    5563  N   GLY C 259      64.269 123.685   6.990  1.00 42.12      7
ATOM    5564  CA  GLY C 259      63.679 124.995   6.850  1.00 40.93      6
ATOM    5565  C   GLY C 259      63.238 125.119   5.408  1.00 40.90      6
ATOM    5566  O   GLY C 259      62.037 125.170   5.129  1.00 40.65      8
ATOM    5567  N   LEU C 260      64.200 125.147   4.485  1.00 31.09      7
ATOM    5568  CA  LEU C 260      63.864 125.273   3.067  1.00 32.91      6
ATOM    5569  CB  LEU C 260      65.137 125.288   2.195  1.00 54.75      6
ATOM    5570  CG  LEU C 260      65.062 125.650   0.688  1.00 53.93      6
ATOM    5571  CD1 LEU C 260      66.449 125.979   0.197  1.00 54.88      6
ATOM    5572  CD2 LEU C 260      64.503 124.532  -0.167  1.00 53.12      6
ATOM    5573  C   LEU C 260      62.942 124.139   2.627  1.00 33.56      6
ATOM    5574  O   LEU C 260      62.855 123.107   3.286  1.00 32.20      8
ATOM    5575  N   LEU C 261      62.252 124.360   1.514  1.00 74.26      7
ATOM    5576  CA  LEU C 261      61.329 123.396   0.923  1.00 76.02      6
ATOM    5577  CB  LEU C 261      62.083 122.408   0.015  1.00 80.87      6
ATOM    5578  CG  LEU C 261      62.573 121.041   0.505  1.00 80.48      6
ATOM    5579  CD1 LEU C 261      63.112 120.264  -0.688  1.00 80.79      6
ATOM    5580  CD2 LEU C 261      63.641 121.187   1.559  1.00 80.51      6
ATOM    5581  C   LEU C 261      60.452 122.621   1.894  1.00 77.26      6
ATOM    5582  O   LEU C 261      60.928 121.854   2.729  1.00 76.99      8
ATOM    5583  N   ALA C 262      59.150 122.829   1.751  1.00 44.61      7
ATOM    5584  CA  ALA C 262      58.168 122.171   2.580  1.00 45.54      6
ATOM    5585  CB  ALA C 262      56.803 122.666   2.190  1.00 13.87      6
ATOM    5586  C   ALA C 262      58.260 120.654   2.404  1.00 47.51      6
ATOM    5587  O   ALA C 262      57.279 119.934   2.626  1.00 48.30      8
ATOM    5588  N   ASP C 263      59.439 120.171   2.009  1.00 48.36      7
ATOM    5589  CA  ASP C 263      59.652 118.743   1.785  1.00 51.39      6
ATOM    5590  CB  ASP C 263      60.790 118.525   0.783  1.00112.70      6
ATOM    5591  CG  ASP C 263      61.786 117.462   1.243  1.00114.08      6
```

100

```
ATOM    5592    OD1   ASP   C   263        61.369   116.302     1.432   1.00115.21    8
ATOM    5593    OD2   ASP   C   263        62.982   117.786     1.422   1.00113.92    8
ATOM    5594    C     ASP   C   263        59.941   117.941     3.043   1.00 52.97    6
ATOM    5595    O     ASP   C   263        59.361   116.875     3.240   1.00 52.61    8
ATOM    5596    N     PRO   C   264        60.864   118.421     3.893   1.00 61.10    7
ATOM    5597    CD    PRO   C   264        61.992   119.306     3.555   1.00121.93    6
ATOM    5598    CA    PRO   C   264        61.175   117.681     5.114   1.00 63.87    6
ATOM    5599    CB    PRO   C   264        62.656   117.405     4.942   1.00123.85    6
ATOM    5600    CG    PRO   C   264        63.142   118.742     4.415   1.00123.04    6
ATOM    5601    C     PRO   C   264        60.885   118.496     6.377   1.00 65.94    6
ATOM    5602    O     PRO   C   264        61.380   118.184     7.465   1.00 65.59    8
ATOM    5603    N     LYS   C   265        60.082   119.542     6.232   1.00114.70    7
ATOM    5604    CA    LYS   C   265        59.762   120.389     7.370   1.00117.68    6
ATOM    5605    CB    LYS   C   265        60.964   121.290     7.703   1.00 69.15    6
ATOM    5606    CG    LYS   C   265        60.841   122.110     8.987   1.00 68.89    6
ATOM    5607    CD    LYS   C   265        61.275   121.307    10.208   1.00 69.00    6
ATOM    5608    CE    LYS   C   265        61.219   122.141    11.486   1.00 69.27    6
ATOM    5609    NZ    LYS   C   265        61.710   121.388    12.683   1.00 69.17    7
ATOM    5610    C     LYS   C   265        58.551   121.253     7.062   1.00120.01    6
ATOM    5611    O     LYS   C   265        58.690   122.360     6.555   1.00119.67    8
ATOM    5612    N     ARG   C   266        57.361   120.744     7.345   1.00 80.91    7
ATOM    5613    CA    ARG   C   266        56.165   121.534     7.118   1.00 84.78    6
ATOM    5614    CB    ARG   C   266        55.942   121.783     5.618   1.00126.80    6
ATOM    5615    CG    ARG   C   266        54.875   120.918     4.943   1.00129.36    6
ATOM    5616    CD    ARG   C   266        54.358   121.611     3.679   1.00131.03    6
ATOM    5617    NE    ARG   C   266        53.368   120.833     2.937   1.00132.53    7
ATOM    5618    CZ    ARG   C   266        52.662   121.309     1.913   1.00133.01    6
ATOM    5619    NH1   ARG   C   266        52.830   122.562     1.506   1.00132.55    7
ATOM    5620    NH2   ARG   C   266        51.783   120.534     1.295   1.00134.02    7
ATOM    5621    C     ARG   C   266        54.921   120.928     7.740   1.00 86.59    6
ATOM    5622    O     ARG   C   266        54.568   119.779     7.482   1.00 86.90    8
ATOM    5623    N     TYR   C   267        54.265   121.726     8.574   1.00163.69    7
ATOM    5624    CA    TYR   C   267        53.044   121.312     9.244   1.00165.06    6
ATOM    5625    CB    TYR   C   267        52.944   121.975    10.629   1.00 86.31    6
ATOM    5626    CG    TYR   C   267        54.289   122.359    11.228   1.00 86.21    6
ATOM    5627    CD1   TYR   C   267        54.387   123.415    12.128   1.00 87.05    6
ATOM    5628    CE1   TYR   C   267        55.630   123.863    12.590   1.00 86.89    6
ATOM    5629    CD2   TYR   C   267        55.472   121.743    10.815   1.00 85.28    6
ATOM    5630    CE2   TYR   C   267        56.713   122.182    11.267   1.00 85.79    6
ATOM    5631    CZ    TYR   C   267        56.785   123.245    12.151   1.00 86.10    6
ATOM    5632    OH    TYR   C   267        58.007   123.714    12.572   1.00 85.99    8
ATOM    5633    C     TYR   C   267        51.975   121.834     8.286   1.00165.93    6
ATOM    5634    O     TYR   C   267        50.838   122.116     8.669   1.00166.25    8
ATOM    5635    N     ASP   C   268        52.406   121.959     7.030   1.00129.89    7
ATOM    5636    CA    ASP   C   268        51.617   122.416     5.888   1.00131.45    6
ATOM    5637    CB    ASP   C   268        51.233   121.210     5.003   1.00182.27    6
ATOM    5638    CG    ASP   C   268        50.760   119.998     5.806   1.00183.34    6
ATOM    5639    OD1   ASP   C   268        51.580   119.405     6.540   1.00183.74    8
ATOM    5640    OD2   ASP   C   268        49.568   119.633     5.694   1.00184.62    8
ATOM    5641    C     ASP   C   268        50.382   123.275     6.142   1.00131.54    6
ATOM    5642    O     ASP   C   268        50.344   124.063     7.089   1.00131.27    8
ATOM    5643    N     ALA   C   269        49.399   123.121     5.247   1.00198.05    7
ATOM    5644    CA    ALA   C   269        48.109   123.819     5.275   1.00197.81    6
ATOM    5645    CB    ALA   C   269        47.081   122.971     6.053   1.00 84.50    6
ATOM    5646    C     ALA   C   269        48.179   125.228     5.856   1.00197.19    6
ATOM    5647    O     ALA   C   269        48.035   126.228     5.150   1.00197.51    8
```

101

```
ATOM   5648  N    GLY C 270     48.391 125.284   7.160  1.00123.16      7
ATOM   5649  CA   GLY C 270     48.487 126.544   7.854  1.00121.84      6
ATOM   5650  C    GLY C 270     48.242 126.229   9.311  1.00121.58      6
ATOM   5651  O    GLY C 270     48.893 126.770  10.200  1.00121.86      8
ATOM   5652  N    GLU C 271     47.312 125.314   9.548  1.00 56.86      7
ATOM   5653  CA   GLU C 271     46.955 124.928  10.900  1.00 56.02      6
ATOM   5654  CB   GLU C 271     45.659 124.117  10.870  1.00103.22      6
ATOM   5655  CG   GLU C 271     44.493 124.851  10.224  1.00102.91      6
ATOM   5656  CD   GLU C 271     44.210 126.195  10.872  1.00103.24      6
ATOM   5657  OE1  GLU C 271     43.798 126.221  12.052  1.00103.46      8
ATOM   5658  OE2  GLU C 271     44.399 127.226  10.196  1.00103.93      8
ATOM   5659  C    GLU C 271     48.040 124.144  11.635  1.00 55.94      6
ATOM   5660  O    GLU C 271     48.949 123.584  11.020  1.00 55.00      8
ATOM   5661  N    ALA C 272     47.925 124.145  12.963  1.00136.30      7
ATOM   5662  CA   ALA C 272     48.822 123.445  13.883  1.00137.12      6
ATOM   5663  CB   ALA C 272     48.819 121.943  13.563  1.00 70.85      6
ATOM   5664  C    ALA C 272     50.265 123.957  13.996  1.00138.00      6
ATOM   5665  O    ALA C 272     51.048 123.432  14.792  1.00138.36      8
ATOM   5666  N    GLY C 273     50.622 124.980  13.225  1.00107.29      7
ATOM   5667  CA   GLY C 273     51.981 125.498  13.293  1.00107.57      6
ATOM   5668  C    GLY C 273     52.072 127.006  13.427  1.00107.38      6
ATOM   5669  O    GLY C 273     52.775 127.532  14.290  1.00106.84      8
ATOM   5670  N    ARG C 274     51.371 127.708  12.548  1.00163.77      7
ATOM   5671  CA   ARG C 274     51.368 129.155  12.597  1.00164.91      6
ATOM   5672  CB   ARG C 274     50.629 129.729  11.382  1.00130.45      6
ATOM   5673  CG   ARG C 274     49.139 129.418  11.330  1.00130.94      6
ATOM   5674  CD   ARG C 274     48.559 129.727   9.960  1.00131.16      6
ATOM   5675  NE   ARG C 274     47.121 129.490   9.909  1.00132.12      7
ATOM   5676  CZ   ARG C 274     46.406 129.467   8.788  1.00132.41      6
ATOM   5677  NH1  ARG C 274     46.998 129.664   7.614  1.00131.64      7
ATOM   5678  NH2  ARG C 274     45.098 129.252   8.842  1.00133.00      7
ATOM   5679  C    ARG C 274     50.648 129.516  13.886  1.00165.08      6
ATOM   5680  O    ARG C 274     51.175 130.255  14.717  1.00165.31      8
ATOM   5681  N    TYR C 275     49.450 128.965  14.055  1.00126.35      7
ATOM   5682  CA   TYR C 275     48.652 129.214  15.243  1.00127.24      6
ATOM   5683  CB   TYR C 275     47.471 128.246  15.304  1.00208.45      6
ATOM   5684  CG   TYR C 275     46.313 128.627  14.412  1.00208.87      6
ATOM   5685  CD1  TYR C 275     46.488 128.794  13.040  1.00208.87      6
ATOM   5686  CE1  TYR C 275     45.421 129.137  12.213  1.00208.87      6
ATOM   5687  CD2  TYR C 275     45.036 128.812  14.940  1.00208.87      6
ATOM   5688  CE2  TYR C 275     43.960 129.154  14.122  1.00208.87      6
ATOM   5689  CZ   TYR C 275     44.160 129.315  12.759  1.00208.87      6
ATOM   5690  OH   TYR C 275     43.099 129.642  11.942  1.00208.87      8
ATOM   5691  C    TYR C 275     49.509 129.044  16.482  1.00127.57      6
ATOM   5692  O    TYR C 275     49.534 129.906  17.358  1.00128.16      8
ATOM   5693  N    ALA C 276     50.225 127.932  16.550  1.00 62.61      7
ATOM   5694  CA   ALA C 276     51.067 127.683  17.703  1.00 61.43      6
ATOM   5695  CB   ALA C 276     51.898 126.435  17.470  1.00160.70      6
ATOM   5696  C    ALA C 276     51.977 128.872  18.019  1.00 60.68      6
ATOM   5697  O    ALA C 276     51.614 129.755  18.804  1.00 60.70      8
ATOM   5698  N    ALA C 277     53.155 128.882  17.395  1.00 41.08      7
ATOM   5699  CA   ALA C 277     54.162 129.925  17.587  1.00 40.08      6
ATOM   5700  CB   ALA C 277     55.221 129.831  16.495  1.00110.85      6
ATOM   5701  C    ALA C 277     53.583 131.328  17.613  1.00 39.89      6
ATOM   5702  O    ALA C 277     53.900 132.111  18.506  1.00 38.90      8
ATOM   5703  N    GLU C 278     52.739 131.644  16.633  1.00158.16      7
```

```
ATOM    5704  CA   GLU C 278        52.138 132.970  16.553  1.00159.25      6
ATOM    5705  CB   GLU C 278        51.176 133.072  15.363  1.00206.63      6
ATOM    5706  CG   GLU C 278        50.658 134.491  15.119  1.00208.87      6
ATOM    5707  CD   GLU C 278        49.767 134.604  13.893  1.00208.87      6
ATOM    5708  OE1  GLU C 278        48.678 133.994  13.882  1.00208.87      8
ATOM    5709  OE2  GLU C 278        50.158 135.306  12.936  1.00208.87      8
ATOM    5710  C    GLU C 278        51.398 133.302  17.834  1.00158.42      6
ATOM    5711  O    GLU C 278        51.175 134.468  18.147  1.00158.85      8
ATOM    5712  N    GLU C 279        51.007 132.278  18.576  1.00 95.46      7
ATOM    5713  CA   GLU C 279        50.313 132.511  19.825  1.00 93.85      6
ATOM    5714  CB   GLU C 279        48.905 131.927  19.770  1.00 94.99      6
ATOM    5715  CG   GLU C 279        47.952 132.709  18.864  1.00 95.71      6
ATOM    5716  CD   GLU C 279        47.892 134.192  19.207  1.00 96.88      6
ATOM    5717  OE1  GLU C 279        47.698 134.525  20.394  1.00 97.18      8
ATOM    5718  OE2  GLU C 279        48.031 135.033  18.292  1.00 98.81      8
ATOM    5719  C    GLU C 279        51.115 131.910  20.960  1.00 92.63      6
ATOM    5720  O    GLU C 279        50.578 131.279  21.865  1.00 93.45      8
ATOM    5721  N    LYS C 280        52.420 132.124  20.885  1.00 48.25      7
ATOM    5722  CA   LYS C 280        53.374 131.649  21.877  1.00 47.22      6
ATOM    5723  CB   LYS C 280        53.812 130.213  21.571  1.00149.55      6
ATOM    5724  CG   LYS C 280        52.707 129.162  21.590  1.00151.23      6
ATOM    5725  CD   LYS C 280        52.316 128.745  23.004  1.00151.98      6
ATOM    5726  CE   LYS C 280        51.303 127.596  22.974  1.00152.43      6
ATOM    5727  NZ   LYS C 280        50.930 127.093  24.331  1.00151.40      7
ATOM    5728  C    LYS C 280        54.570 132.581  21.718  1.00 46.41      6
ATOM    5729  O    LYS C 280        55.041 133.204  22.673  1.00 45.83      8
ATOM    5730  N    LEU C 281        55.052 132.666  20.484  1.00 94.79      7
ATOM    5731  CA   LEU C 281        56.181 133.514  20.143  1.00 94.93      6
ATOM    5732  CB   LEU C 281        56.928 132.932  18.942  1.00 69.65      6
ATOM    5733  CG   LEU C 281        57.586 131.565  19.112  1.00 70.36      6
ATOM    5734  CD1  LEU C 281        58.050 131.071  17.764  1.00 69.69      6
ATOM    5735  CD2  LEU C 281        58.744 131.665  20.082  1.00 70.93      6
ATOM    5736  C    LEU C 281        55.652 134.898  19.794  1.00 95.02      6
ATOM    5737  O    LEU C 281        54.462 135.169  19.946  1.00 94.94      8
ATOM    5738  N    GLY C 282        56.543 135.764  19.322  1.00208.87      7
ATOM    5739  CA   GLY C 282        56.153 137.113  18.954  1.00208.87      6
ATOM    5740  C    GLY C 282        54.832 137.162  18.213  1.00208.87      6
ATOM    5741  O    GLY C 282        53.907 137.837  18.658  1.00208.87      8
ATOM    5742  N    VAL C 283        54.756 136.438  17.096  1.00107.38      7
ATOM    5743  CA   VAL C 283        53.568 136.359  16.239  1.00106.04      6
ATOM    5744  CB   VAL C 283        52.587 137.562  16.457  1.00159.21      6
ATOM    5745  CG1  VAL C 283        51.944 137.990  15.142  1.00159.40      6
ATOM    5746  CG2  VAL C 283        51.490 137.167  17.433  1.00158.58      6
ATOM    5747  C    VAL C 283        54.040 136.358  14.795  1.00105.26      6
ATOM    5748  O    VAL C 283        55.190 136.684  14.520  1.00106.40      8
ATOM    5749  N    GLY C 284        53.152 135.980  13.882  1.00 79.40      7
ATOM    5750  CA   GLY C 284        53.495 135.955  12.473  1.00 78.56      6
ATOM    5751  C    GLY C 284        54.516 134.892  12.116  1.00 78.47      6
ATOM    5752  O    GLY C 284        55.423 134.604  12.898  1.00 78.70      8
ATOM    5753  N    LEU C 285        54.376 134.312  10.928  1.00 96.55      7
ATOM    5754  CA   LEU C 285        55.292 133.272  10.475  1.00 95.68      6
ATOM    5755  CB   LEU C 285        55.217 132.086  11.426  1.00 67.63      6
ATOM    5756  CG   LEU C 285        56.501 131.361  11.808  1.00 66.94      6
ATOM    5757  CD1  LEU C 285        56.192 130.527  13.029  1.00 66.94      6
ATOM    5758  CD2  LEU C 285        57.019 130.489  10.669  1.00 66.84      6
ATOM    5759  C    LEU C 285        54.866 132.852   9.077  1.00 95.70      6
```

```
ATOM   5760   O    LEU C 285     54.099 133.559    8.434   1.00 95.72    8
ATOM   5761   N    SER C 286     55.351 131.705    8.609   1.00140.80    7
ATOM   5762   CA   SER C 286     55.001 131.229    7.274   1.00140.03    6
ATOM   5763   CB   SER C 286     55.741 132.051    6.207   1.00102.60    6
ATOM   5764   OG   SER C 286     55.555 133.446    6.381   1.00101.88    8
ATOM   5765   C    SER C 286     55.343 129.753    7.072   1.00139.39    6
ATOM   5766   O    SER C 286     56.515 129.401    6.961   1.00139.47    8
ATOM   5767   N    GLY C 287     54.322 128.900    7.028   1.00 95.77    7
ATOM   5768   CA   GLY C 287     54.532 127.474    6.805   1.00 95.78    6
ATOM   5769   C    GLY C 287     55.666 126.736    7.510   1.00 96.06    6
ATOM   5770   O    GLY C 287     55.409 125.965    8.437   1.00 95.73    8
ATOM   5771   N    ALA C 288     56.912 126.945    7.071   1.00 94.57    7
ATOM   5772   CA   ALA C 288     58.071 126.268    7.671   1.00 94.17    6
ATOM   5773   CB   ALA C 288     58.667 125.298    6.676   1.00 50.77    6
ATOM   5774   C    ALA C 288     59.189 127.159    8.212   1.00 93.74    6
ATOM   5775   O    ALA C 288     59.444 128.249    7.703   1.00 93.76    8
ATOM   5776   N    THR C 289     59.862 126.661    9.245   1.00 94.67    7
ATOM   5777   CA   THR C 289     60.980 127.362    9.869   1.00 95.18    6
ATOM   5778   CB   THR C 289     61.803 126.430   10.805   1.00 89.75    6
ATOM   5779   OG1  THR C 289     60.986 125.955   11.885   1.00 89.80    8
ATOM   5780   CG2  THR C 289     62.991 127.173   11.365   1.00 89.32    6
ATOM   5781   C    THR C 289     61.898 127.792    8.740   1.00 95.31    6
ATOM   5782   O    THR C 289     62.015 127.087    7.741   1.00 95.64    8
ATOM   5783   N    LEU C 290     62.548 128.939    8.902   1.00 55.18    7
ATOM   5784   CA   LEU C 290     63.465 129.465    7.891   1.00 56.06    6
ATOM   5785   CB   LEU C 290     64.782 128.695    7.932   1.00 88.40    6
ATOM   5786   CG   LEU C 290     65.811 129.042    6.857   1.00 88.84    6
ATOM   5787   CD1  LEU C 290     66.107 130.527    6.877   1.00 89.92    6
ATOM   5788   CD2  LEU C 290     67.075 128.243    7.104   1.00 88.80    6
ATOM   5789   C    LEU C 290     62.903 129.441    6.469   1.00 56.25    6
ATOM   5790   O    LEU C 290     61.992 128.682    6.146   1.00 55.02    8
ATOM   5791   N    VAL C 291     63.445 130.298    5.619   1.00 81.17    7
ATOM   5792   CA   VAL C 291     62.994 130.365    4.243   1.00 83.23    6
ATOM   5793   CB   VAL C 291     61.892 131.437    4.046   1.00129.94    6
ATOM   5794   CG1  VAL C 291     61.529 131.544    2.574   1.00129.79    6
ATOM   5795   CG2  VAL C 291     60.659 131.080    4.862   1.00130.39    6
ATOM   5796   C    VAL C 291     64.176 130.704    3.359   1.00 84.36    6
ATOM   5797   O    VAL C 291     64.829 131.734    3.536   1.00 83.65    8
ATOM   5798   N    ALA C 292     64.449 129.814    2.412   1.00196.81    7
ATOM   5799   CA   ALA C 292     65.545 129.991    1.475   1.00198.79    6
ATOM   5800   CB   ALA C 292     66.540 128.861    1.626   1.00125.71    6
ATOM   5801   C    ALA C 292     64.990 130.017    0.058   1.00200.14    6
ATOM   5802   O    ALA C 292     63.800 130.267   -0.148   1.00200.89    8
ATOM   5803   N    PHE C 293     65.854 129.754   -0.914   1.00 97.14    7
ATOM   5804   CA   PHE C 293     65.458 129.752   -2.316   1.00 98.47    6
ATOM   5805   CB   PHE C 293     64.614 128.511   -2.634   1.00208.87    6
ATOM   5806   CG   PHE C 293     64.578 128.162   -4.098   1.00208.87    6
ATOM   5807   CD1  PHE C 293     65.752 127.851   -4.779   1.00208.87    6
ATOM   5808   CD2  PHE C 293     63.376 128.151   -4.798   1.00208.87    6
ATOM   5809   CE1  PHE C 293     65.732 127.534   -6.135   1.00208.87    6
ATOM   5810   CE2  PHE C 293     63.344 127.835   -6.156   1.00208.87    6
ATOM   5811   CZ   PHE C 293     64.526 127.527   -6.824   1.00208.87    6
ATOM   5812   C    PHE C 293     64.679 131.019   -2.675   1.00 98.97    6
ATOM   5813   O    PHE C 293     64.020 131.083   -3.715   1.00 99.42    8
ATOM   5814   N    GLU C 294     64.748 132.020   -1.802   1.00165.72    7
ATOM   5815   CA   GLU C 294     64.078 133.294   -2.039   1.00166.50    6
```

104

```
ATOM    5816  CB   GLU C 294     64.121 134.151  -0.775  1.00133.84    6
ATOM    5817  CG   GLU C 294     63.130 133.742   0.283  1.00135.17    6
ATOM    5818  CD   GLU C 294     61.717 134.128  -0.086  1.00136.82    6
ATOM    5819  OE1  GLU C 294     61.464 135.338  -0.270  1.00137.55    8
ATOM    5820  OE2  GLU C 294     60.859 133.226  -0.192  1.00138.64    8
ATOM    5821  C    GLU C 294     64.857 133.987  -3.144  1.00166.56    6
ATOM    5822  O    GLU C 294     64.294 134.476  -4.126  1.00166.41    8
ATOM    5823  N    ASP C 295     66.170 134.003  -2.953  1.00135.96    7
ATOM    5824  CA   ASP C 295     67.117 134.607  -3.874  1.00135.93    6
ATOM    5825  CB   ASP C 295     66.697 136.045  -4.201  1.00 86.41    6
ATOM    5826  CG   ASP C 295     66.565 136.913  -2.967  1.00 85.80    6
ATOM    5827  OD1  ASP C 295     65.831 136.526  -2.041  1.00 84.79    8
ATOM    5828  OD2  ASP C 295     67.200 137.985  -2.927  1.00 86.23    8
ATOM    5829  C    ASP C 295     68.477 134.582  -3.177  1.00136.47    6
ATOM    5830  O    ASP C 295     68.875 135.553  -2.530  1.00136.80    8
ATOM    5831  N    GLY C 296     69.173 133.455  -3.293  1.00110.37    7
ATOM    5832  CA   GLY C 296     70.470 133.326  -2.655  1.00110.99    6
ATOM    5833  C    GLY C 296     70.378 133.109  -1.157  1.00111.59    6
ATOM    5834  O    GLY C 296     70.265 131.972  -0.698  1.00112.40    8
ATOM    5835  N    GLU C 297     70.414 134.197  -0.391  1.00170.55    7
ATOM    5836  CA   GLU C 297     70.353 134.110   1.069  1.00170.60    6
ATOM    5837  CB   GLU C 297     70.454 135.504   1.701  1.00186.63    6
ATOM    5838  CG   GLU C 297     69.344 136.466   1.302  1.00188.22    6
ATOM    5839  CD   GLU C 297     69.261 137.676   2.219  1.00188.95    6
ATOM    5840  OE1  GLU C 297     70.310 138.305   2.478  1.00189.46    8
ATOM    5841  OE2  GLU C 297     68.143 138.004   2.673  1.00189.15    8
ATOM    5842  C    GLU C 297     69.095 133.426   1.586  1.00170.34    6
ATOM    5843  O    GLU C 297     68.225 133.022   0.818  1.00170.10    8
ATOM    5844  N    PHE C 298     69.019 133.309   2.906  1.00140.37    7
ATOM    5845  CA   PHE C 298     67.893 132.682   3.577  1.00140.50    6
ATOM    5846  CB   PHE C 298     68.384 131.530   4.457  1.00139.59    6
ATOM    5847  CG   PHE C 298     68.795 130.305   3.697  1.00140.10    6
ATOM    5848  CD1  PHE C 298     69.308 130.399   2.411  1.00140.80    6
ATOM    5849  CD2  PHE C 298     68.701 129.053   4.289  1.00139.57    6
ATOM    5850  CE1  PHE C 298     69.714 129.262   1.721  1.00140.82    6
ATOM    5851  CE2  PHE C 298     69.103 127.913   3.610  1.00139.07    6
ATOM    5852  CZ   PHE C 298     69.613 128.015   2.327  1.00139.85    6
ATOM    5853  C    PHE C 298     67.176 133.687   4.462  1.00140.52    6
ATOM    5854  O    PHE C 298     67.815 134.447   5.185  1.00141.28    8
ATOM    5855  N    LYS C 299     65.850 133.695   4.400  1.00 97.69    7
ATOM    5856  CA   LYS C 299     65.072 134.590   5.240  1.00 97.41    6
ATOM    5857  CB   LYS C 299     64.040 135.377   4.417  1.00101.03    6
ATOM    5858  CG   LYS C 299     62.904 134.549   3.816  1.00101.43    6
ATOM    5859  CD   LYS C 299     61.770 135.448   3.323  1.00102.35    6
ATOM    5860  CE   LYS C 299     60.566 134.637   2.870  1.00103.16    6
ATOM    5861  NZ   LYS C 299     59.472 135.510   2.363  1.00103.26    7
ATOM    5862  C    LYS C 299     64.374 133.736   6.296  1.00 96.80    6
ATOM    5863  O    LYS C 299     63.288 133.208   6.066  1.00 96.71    8
ATOM    5864  N    ASP C 300     65.010 133.591   7.454  1.00125.77    7
ATOM    5865  CA   ASP C 300     64.447 132.780   8.526  1.00124.41    6
ATOM    5866  CB   ASP C 300     65.450 132.619   9.667  1.00119.73    6
ATOM    5867  CG   ASP C 300     65.503 133.835  10.567  1.00120.65    6
ATOM    5868  OD1  ASP C 300     65.894 134.916  10.083  1.00121.00    8
ATOM    5869  OD2  ASP C 300     65.144 133.708  11.757  1.00120.80    8
ATOM    5870  C    ASP C 300     63.174 133.384   9.081  1.00123.28    6
ATOM    5871  O    ASP C 300     62.922 134.580   8.948  1.00123.66    8
```

ATOM	5872	N	GLU	C	301	62.376	132.538	9.713	1.00	134.29	7
ATOM	5873	CA	GLU	C	301	61.129	132.969	10.312	1.00	132.48	6
ATOM	5874	CB	GLU	C	301	59.957	132.201	9.694	1.00	85.74	6
ATOM	5875	CG	GLU	C	301	59.865	132.246	8.153	1.00	86.85	6
ATOM	5876	CD	GLU	C	301	59.436	133.597	7.591	1.00	87.33	6
ATOM	5877	OE1	GLU	C	301	58.561	134.248	8.198	1.00	88.03	8
ATOM	5878	OE2	GLU	C	301	59.957	133.999	6.529	1.00	87.91	8
ATOM	5879	C	GLU	C	301	61.224	132.687	11.816	1.00	130.86	6
ATOM	5880	O	GLU	C	301	61.342	133.612	12.621	1.00	131.67	8
ATOM	5881	N	VAL	C	302	61.194	131.407	12.183	1.00	150.57	7
ATOM	5882	CA	VAL	C	302	61.283	130.989	13.583	1.00	147.82	6
ATOM	5883	CB	VAL	C	302	60.219	129.905	13.907	1.00	130.83	6
ATOM	5884	CG1	VAL	C	302	60.690	129.001	15.047	1.00	131.76	6
ATOM	5885	CG2	VAL	C	302	58.934	130.574	14.308	1.00	131.06	6
ATOM	5886	C	VAL	C	302	62.662	130.445	13.945	1.00	145.09	6
ATOM	5887	O	VAL	C	302	63.113	129.464	13.361	1.00	145.82	8
ATOM	5888	N	PHE	C	303	63.320	131.081	14.911	1.00	103.76	7
ATOM	5889	CA	PHE	C	303	64.638	130.642	15.351	1.00	99.80	6
ATOM	5890	CB	PHE	C	303	65.582	130.499	14.166	1.00	43.70	6
ATOM	5891	CG	PHE	C	303	65.991	129.084	13.898	1.00	41.90	6
ATOM	5892	CD1	PHE	C	303	65.617	128.442	12.728	1.00	41.03	6
ATOM	5893	CD2	PHE	C	303	66.751	128.386	14.819	1.00	41.62	6
ATOM	5894	CE1	PHE	C	303	65.992	127.125	12.478	1.00	40.27	6
ATOM	5895	CE2	PHE	C	303	67.131	127.066	14.574	1.00	42.22	6
ATOM	5896	CZ	PHE	C	303	66.749	126.437	13.399	1.00	41.12	6
ATOM	5897	C	PHE	C	303	65.257	131.580	16.377	1.00	98.71	6
ATOM	5898	O	PHE	C	303	65.676	131.146	17.452	1.00	99.30	8
ATOM	5899	N	LEU	C	304	65.342	132.861	16.034	1.00	121.07	7
ATOM	5900	CA	LEU	C	304	65.881	133.866	16.947	1.00	117.89	6
ATOM	5901	CB	LEU	C	304	66.549	135.010	16.172	1.00	58.33	6
ATOM	5902	CG	LEU	C	304	66.257	136.475	16.535	1.00	57.60	6
ATOM	5903	CD1	LEU	C	304	67.456	137.347	16.186	1.00	57.31	6
ATOM	5904	CD2	LEU	C	304	65.012	136.958	15.801	1.00	57.48	6
ATOM	5905	C	LEU	C	304	64.746	134.406	17.801	1.00	116.09	6
ATOM	5906	O	LEU	C	304	64.939	134.703	18.976	1.00	116.63	8
ATOM	5907	N	PRO	C	305	63.542	134.543	17.215	1.00	79.40	7
ATOM	5908	CD	PRO	C	305	63.180	134.343	15.802	1.00	52.04	6
ATOM	5909	CA	PRO	C	305	62.390	135.052	17.962	1.00	77.80	6
ATOM	5910	CB	PRO	C	305	61.261	134.996	16.934	1.00	51.78	6
ATOM	5911	CG	PRO	C	305	61.974	135.230	15.662	1.00	52.39	6
ATOM	5912	C	PRO	C	305	62.115	134.171	19.175	1.00	76.42	6
ATOM	5913	O	PRO	C	305	61.688	134.652	20.230	1.00	75.90	8
ATOM	5914	N	THR	C	306	62.353	132.875	19.013	1.00	64.70	7
ATOM	5915	CA	THR	C	306	62.153	131.944	20.103	1.00	62.16	6
ATOM	5916	CB	THR	C	306	62.114	130.496	19.588	1.00	37.62	6
ATOM	5917	OG1	THR	C	306	60.961	129.845	20.128	1.00	37.49	8
ATOM	5918	CG2	THR	C	306	63.355	129.717	20.003	1.00	36.49	6
ATOM	5919	C	THR	C	306	63.321	132.149	21.062	1.00	61.79	6
ATOM	5920	O	THR	C	306	63.137	132.197	22.279	1.00	62.74	8
ATOM	5921	N	LEU	C	307	64.520	132.283	20.498	1.00	68.15	7
ATOM	5922	CA	LEU	C	307	65.735	132.514	21.276	1.00	66.39	6
ATOM	5923	CB	LEU	C	307	66.900	132.800	20.322	1.00	49.86	6
ATOM	5924	CG	LEU	C	307	68.341	132.691	20.827	1.00	48.12	6
ATOM	5925	CD1	LEU	C	307	68.652	131.276	21.309	1.00	45.23	6
ATOM	5926	CD2	LEU	C	307	69.268	133.098	19.693	1.00	47.43	6
ATOM	5927	C	LEU	C	307	65.405	133.739	22.121	1.00	66.43	6

ATOM	5928	O	LEU	C	307	65.789	133.850	23.285	1.00	66.27	8
ATOM	5929	N	ARG	C	308	64.663	134.647	21.499	1.00	50.53	7
ATOM	5930	CA	ARG	C	308	64.186	135.871	22.129	1.00	49.79	6
ATOM	5931	CB	ARG	C	308	63.410	136.697	21.090	1.00	71.35	6
ATOM	5932	CG	ARG	C	308	62.901	138.065	21.532	1.00	73.99	6
ATOM	5933	CD	ARG	C	308	62.560	138.925	20.304	1.00	75.25	6
ATOM	5934	NE	ARG	C	308	61.647	138.249	19.382	1.00	75.78	7
ATOM	5935	CZ	ARG	C	308	61.333	138.696	18.169	1.00	75.70	6
ATOM	5936	NH1	ARG	C	308	61.855	139.825	17.713	1.00	75.04	7
ATOM	5937	NH2	ARG	C	308	60.493	138.011	17.408	1.00	76.65	7
ATOM	5938	C	ARG	C	308	63.260	135.391	23.240	1.00	48.91	6
ATOM	5939	O	ARG	C	308	63.627	135.416	24.420	1.00	48.85	8
ATOM	5940	N	TYR	C	309	62.074	134.923	22.841	1.00	59.73	7
ATOM	5941	CA	TYR	C	309	61.063	134.401	23.767	1.00	57.75	6
ATOM	5942	CB	TYR	C	309	59.986	133.625	22.997	1.00	46.74	6
ATOM	5943	CG	TYR	C	309	58.894	132.982	23.847	1.00	44.05	6
ATOM	5944	CD1	TYR	C	309	57.800	133.719	24.291	1.00	44.13	6
ATOM	5945	CE1	TYR	C	309	56.776	133.114	25.015	1.00	44.22	6
ATOM	5946	CD2	TYR	C	309	58.938	131.622	24.161	1.00	42.45	6
ATOM	5947	CE2	TYR	C	309	57.932	131.011	24.880	1.00	42.72	6
ATOM	5948	CZ	TYR	C	309	56.849	131.759	25.301	1.00	43.96	6
ATOM	5949	OH	TYR	C	309	55.813	131.147	25.968	1.00	44.56	8
ATOM	5950	C	TYR	C	309	61.698	133.487	24.805	1.00	56.45	6
ATOM	5951	O	TYR	C	309	61.065	133.123	25.785	1.00	55.94	8
ATOM	5952	N	LEU	C	310	62.943	133.095	24.585	1.00	18.61	7
ATOM	5953	CA	LEU	C	310	63.594	132.257	25.554	1.00	19.45	6
ATOM	5954	CB	LEU	C	310	64.806	131.545	24.969	1.00	22.17	6
ATOM	5955	CG	LEU	C	310	65.500	130.689	26.043	1.00	20.12	6
ATOM	5956	CD1	LEU	C	310	64.601	129.509	26.355	1.00	17.82	6
ATOM	5957	CD2	LEU	C	310	66.891	130.218	25.601	1.00	18.38	6
ATOM	5958	C	LEU	C	310	64.056	133.133	26.699	1.00	21.90	6
ATOM	5959	O	LEU	C	310	63.604	132.979	27.837	1.00	22.91	8
ATOM	5960	N	PHE	C	311	64.966	134.057	26.404	1.00	63.18	7
ATOM	5961	CA	PHE	C	311	65.502	134.952	27.430	1.00	64.52	6
ATOM	5962	CB	PHE	C	311	66.446	135.981	26.784	1.00	56.38	6
ATOM	5963	CG	PHE	C	311	67.695	135.373	26.181	1.00	56.52	6
ATOM	5964	CD1	PHE	C	311	68.669	136.180	25.608	1.00	56.80	6
ATOM	5965	CD2	PHE	C	311	67.897	133.998	26.186	1.00	56.67	6
ATOM	5966	CE1	PHE	C	311	69.825	135.631	25.049	1.00	56.17	6
ATOM	5967	CE2	PHE	C	311	69.046	133.446	25.630	1.00	56.99	6
ATOM	5968	CZ	PHE	C	311	70.011	134.268	25.060	1.00	56.37	6
ATOM	5969	C	PHE	C	311	64.378	135.643	28.208	1.00	65.71	6
ATOM	5970	O	PHE	C	311	64.494	135.889	29.408	1.00	65.06	8
ATOM	5971	N	ALA	C	312	63.287	135.938	27.509	1.00	109.29	7
ATOM	5972	CA	ALA	C	312	62.127	136.570	28.119	1.00	110.75	6
ATOM	5973	CB	ALA	C	312	61.064	136.820	27.067	1.00	51.75	6
ATOM	5974	C	ALA	C	312	61.599	135.606	29.167	1.00	111.67	6
ATOM	5975	O	ALA	C	312	60.890	135.989	30.093	1.00	112.90	8
ATOM	5976	N	LEU	C	313	61.958	134.342	28.993	1.00	56.14	7
ATOM	5977	CA	LEU	C	313	61.558	133.269	29.883	1.00	55.56	6
ATOM	5978	CB	LEU	C	313	61.211	132.031	29.054	1.00	15.69	6
ATOM	5979	CG	LEU	C	313	61.013	130.634	29.656	1.00	14.79	6
ATOM	5980	CD1	LEU	C	313	60.006	130.649	30.788	1.00	15.15	6
ATOM	5981	CD2	LEU	C	313	60.543	129.704	28.560	1.00	13.87	6
ATOM	5982	C	LEU	C	313	62.729	132.989	30.800	1.00	56.68	6
ATOM	5983	O	LEU	C	313	62.718	132.033	31.571	1.00	57.42	8

```
ATOM   5984  N    THR C 314      63.750 133.833  30.717  1.00 59.39      7
ATOM   5985  CA   THR C 314      64.920 133.656  31.559  1.00 61.60      6
ATOM   5986  CB   THR C 314      66.096 133.099  30.733  1.00 48.58      6
ATOM   5987  OG1  THR C 314      65.637 132.004  29.927  1.00 47.77      8
ATOM   5988  CG2  THR C 314      67.196 132.590  31.656  1.00 48.80      6
ATOM   5989  C    THR C 314      65.315 134.972  32.246  1.00 63.97      6
ATOM   5990  O    THR C 314      66.455 135.439  32.132  1.00 63.96      8
ATOM   5991  N    ALA C 315      64.339 135.543  32.958  1.00 73.83      7
ATOM   5992  CA   ALA C 315      64.444 136.793  33.722  1.00 74.62      6
ATOM   5993  CB   ALA C 315      65.837 137.419  33.583  1.00 65.98      6
ATOM   5994  C    ALA C 315      63.372 137.792  33.284  1.00 75.31      6
ATOM   5995  O    ALA C 315      63.142 138.798  33.951  1.00 75.44      8
ATOM   5996  N    GLY C 316      62.704 137.502  32.171  1.00 61.65      7
ATOM   5997  CA   GLY C 316      61.675 138.396  31.672  1.00 63.94      6
ATOM   5998  C    GLY C 316      60.316 138.208  32.318  1.00 65.80      6
ATOM   5999  O    GLY C 316      60.215 137.699  33.440  1.00 65.97      8
ATOM   6000  N    VAL C 317      59.270 138.625  31.604  1.00 71.99      7
ATOM   6001  CA   VAL C 317      57.897 138.515  32.094  1.00 73.19      6
ATOM   6002  CB   VAL C 317      57.187 139.884  32.089  1.00 50.58      6
ATOM   6003  CG1  VAL C 317      55.684 139.701  32.287  1.00 50.11      6
ATOM   6004  CG2  VAL C 317      57.753 140.758  33.199  1.00 50.53      6
ATOM   6005  C    VAL C 317      57.003 137.513  31.356  1.00 75.00      6
ATOM   6006  O    VAL C 317      56.214 136.816  31.988  1.00 75.45      8
ATOM   6007  N    PRO C 318      57.107 137.421  30.016  1.00149.53      7
ATOM   6008  CD   PRO C 318      58.077 138.026  29.086  1.00 68.35      6
ATOM   6009  CA   PRO C 318      56.246 136.457  29.315  1.00150.81      6
ATOM   6010  CB   PRO C 318      56.628 136.657  27.849  1.00 68.99      6
ATOM   6011  CG   PRO C 318      58.067 137.042  27.932  1.00 68.35      6
ATOM   6012  C    PRO C 318      56.483 135.027  29.801  1.00152.05      6
ATOM   6013  O    PRO C 318      55.666 134.136  29.583  1.00151.58      8
ATOM   6014  N    GLY C 319      57.620 134.840  30.465  1.00 73.22      7
ATOM   6015  CA   GLY C 319      58.015 133.559  31.023  1.00 74.96      6
ATOM   6016  C    GLY C 319      57.383 132.312  30.452  1.00 76.68      6
ATOM   6017  O    GLY C 319      57.790 131.826  29.400  1.00 76.07      8
ATOM   6018  N    HIS C 320      56.382 131.794  31.152  1.00 84.00      7
ATOM   6019  CA   HIS C 320      55.699 130.575  30.734  1.00 86.17      6
ATOM   6020  CB   HIS C 320      54.877 130.812  29.460  1.00158.67      6
ATOM   6021  CG   HIS C 320      53.751 131.785  29.638  1.00159.50      6
ATOM   6022  CD2  HIS C 320      53.332 132.816  28.866  1.00159.65      6
ATOM   6023  ND1  HIS C 320      52.900 131.749  30.722  1.00159.24      7
ATOM   6024  CE1  HIS C 320      52.008 132.716  30.611  1.00159.88      6
ATOM   6025  NE2  HIS C 320      52.248 133.379  29.494  1.00159.94      7
ATOM   6026  C    HIS C 320      56.719 129.458  30.510  1.00 86.95      6
ATOM   6027  O    HIS C 320      57.403 129.405  29.488  1.00 86.53      8
ATOM   6028  N    GLU C 321      56.829 128.577  31.495  1.00135.10      7
ATOM   6029  CA   GLU C 321      57.757 127.466  31.414  1.00136.56      6
ATOM   6030  CB   GLU C 321      58.179 127.028  32.817  1.00165.69      6
ATOM   6031  CG   GLU C 321      58.904 128.108  33.613  1.00167.45      6
ATOM   6032  CD   GLU C 321      58.115 128.592  34.822  1.00168.27      6
ATOM   6033  OE1  GLU C 321      56.993 129.110  34.642  1.00169.04      8
ATOM   6034  OE2  GLU C 321      58.621 128.457  35.956  1.00167.77      8
ATOM   6035  C    GLU C 321      57.072 126.320  30.692  1.00137.60      6
ATOM   6036  O    GLU C 321      57.513 125.177  30.783  1.00138.15      8
ATOM   6037  N    VAL C 322      55.993 126.635  29.977  1.00 99.38      7
ATOM   6038  CA   VAL C 322      55.236 125.628  29.233  1.00100.56      6
ATOM   6039  CB   VAL C 322      54.463 126.252  28.026  1.00100.02      6
```

108

```
ATOM   6040  CG1 VAL C 322    55.386 127.099  27.186  1.00100.63    6
ATOM   6041  CG2 VAL C 322    53.849 125.155  27.168  1.00 99.26    6
ATOM   6042  C   VAL C 322    56.139 124.512  28.726  1.00101.41    6
ATOM   6043  O   VAL C 322    57.015 124.730  27.890  1.00101.84    8
ATOM   6044  N   ALA C 323    55.922 123.317  29.260  1.00115.83    7
ATOM   6045  CA  ALA C 323    56.704 122.151  28.881  1.00116.94    6
ATOM   6046  CB  ALA C 323    57.288 121.498  30.132  1.00101.48    6
ATOM   6047  C   ALA C 323    55.798 121.169  28.143  1.00117.29    6
ATOM   6048  O   ALA C 323    54.783 121.571  27.572  1.00117.57    8
ATOM   6049  N   ASP C 324    56.164 119.890  28.133  1.00 90.38    7
ATOM   6050  CA  ASP C 324    55.321 118.898  27.498  1.00 90.03    6
ATOM   6051  CB  ASP C 324    56.020 117.535  27.468  1.00208.87    6
ATOM   6052  CG  ASP C 324    56.492 117.085  28.837  1.00208.87    6
ATOM   6053  OD1 ASP C 324    57.291 117.813  29.465  1.00208.87    8
ATOM   6054  OD2 ASP C 324    56.065 115.997  29.279  1.00208.87    8
ATOM   6055  C   ASP C 324    54.108 118.875  28.414  1.00 88.37    6
ATOM   6056  O   ASP C 324    53.586 117.822  28.765  1.00 87.10    8
ATOM   6057  N   ALA C 325    53.698 120.081  28.799  1.00129.49    7
ATOM   6058  CA  ALA C 325    52.588 120.367  29.689  1.00128.97    6
ATOM   6059  CB  ALA C 325    52.037 121.746  29.362  1.00 37.90    6
ATOM   6060  C   ALA C 325    51.474 119.329  29.703  1.00128.58    6
ATOM   6061  O   ALA C 325    50.558 119.403  30.520  1.00129.16    8
ATOM   6062  N   ASP C 326    51.550 118.364  28.798  1.00 84.98    7
ATOM   6063  CA  ASP C 326    50.574 117.296  28.732  1.00 83.82    6
ATOM   6064  CB  ASP C 326    50.641 116.453  30.004  1.00 99.04    6
ATOM   6065  CG  ASP C 326    52.050 115.992  30.321  1.00 99.14    6
ATOM   6066  OD1 ASP C 326    52.692 115.374  29.444  1.00 98.26    8
ATOM   6067  OD2 ASP C 326    52.516 116.244  31.451  1.00 99.68    8
ATOM   6068  C   ASP C 326    49.179 117.850  28.542  1.00 82.28    6
ATOM   6069  O   ASP C 326    48.217 117.099  28.405  1.00 83.20    8
ATOM   6070  N   HIS C 327    49.065 119.170  28.552  1.00131.67    7
ATOM   6071  CA  HIS C 327    47.772 119.780  28.340  1.00129.72    6
ATOM   6072  CB  HIS C 327    47.902 121.302  28.263  1.00 67.84    6
ATOM   6073  CG  HIS C 327    46.595 122.014  28.079  1.00 66.29    6
ATOM   6074  CD2 HIS C 327    46.013 122.538  26.974  1.00 66.15    6
ATOM   6075  ND1 HIS C 327    45.706 122.222  29.111  1.00 65.92    7
ATOM   6076  CE1 HIS C 327    44.633 122.839  28.651  1.00 66.32    6
ATOM   6077  NE2 HIS C 327    44.794 123.043  27.357  1.00 66.58    7
ATOM   6078  C   HIS C 327    47.406 119.229  26.978  1.00127.76    6
ATOM   6079  O   HIS C 327    48.203 119.330  26.050  1.00127.72    8
ATOM   6080  N   LEU C 328    46.235 118.614  26.850  1.00 89.73    7
ATOM   6081  CA  LEU C 328    45.844 118.086  25.553  1.00 85.71    6
ATOM   6082  CB  LEU C 328    44.593 117.232  25.656  1.00 33.75    6
ATOM   6083  CG  LEU C 328    44.896 115.768  25.924  1.00 32.84    6
ATOM   6084  CD1 LEU C 328    45.556 115.634  27.290  1.00 30.73    6
ATOM   6085  CD2 LEU C 328    43.613 114.956  25.846  1.00 34.53    6
ATOM   6086  C   LEU C 328    45.628 119.200  24.547  1.00 83.13    6
ATOM   6087  O   LEU C 328    44.682 119.185  23.766  1.00 83.74    8
ATOM   6088  N   GLY C 329    46.511 120.185  24.611  1.00 95.19    7
ATOM   6089  CA  GLY C 329    46.493 121.295  23.690  1.00 91.47    6
ATOM   6090  C   GLY C 329    47.828 121.088  23.015  1.00 88.66    6
ATOM   6091  O   GLY C 329    48.204 121.800  22.087  1.00 90.13    8
ATOM   6092  N   ASN C 330    48.546 120.081  23.511  1.00 70.19    7
ATOM   6093  CA  ASN C 330    49.861 119.709  22.999  1.00 65.88    6
ATOM   6094  CB  ASN C 330    50.958 120.221  23.938  1.00 42.25    6
ATOM   6095  CG  ASN C 330    50.787 121.686  24.286  1.00 39.89    6
```

109

ATOM	6096	OD1	ASN	C	330	50.329	122.468	23.460	1.00	37.44	8
ATOM	6097	ND2	ASN	C	330	51.167	122.065	25.508	1.00	37.85	7
ATOM	6098	C	ASN	C	330	49.995	118.190	22.841	1.00	63.95	6
ATOM	6099	O	ASN	C	330	51.087	117.680	22.605	1.00	65.25	8
ATOM	6100	N	ARG	C	331	48.879	117.476	22.977	1.00	31.86	7
ATOM	6101	CA	ARG	C	331	48.865	116.024	22.846	1.00	28.53	6
ATOM	6102	CB	ARG	C	331	48.153	115.381	24.030	1.00	42.69	6
ATOM	6103	CG	ARG	C	331	49.024	115.241	25.250	1.00	42.49	6
ATOM	6104	CD	ARG	C	331	49.702	113.896	25.297	1.00	41.46	6
ATOM	6105	NE	ARG	C	331	50.969	113.996	26.005	1.00	41.16	7
ATOM	6106	CZ	ARG	C	331	51.525	113.016	26.714	1.00	41.94	6
ATOM	6107	NH1	ARG	C	331	50.928	111.829	26.831	1.00	41.98	7
ATOM	6108	NH2	ARG	C	331	52.689	113.234	27.317	1.00	42.25	7
ATOM	6109	C	ARG	C	331	48.168	115.619	21.579	1.00	27.55	6
ATOM	6110	O	ARG	C	331	46.963	115.441	21.547	1.00	26.44	8
ATOM	6111	N	ARG	C	332	48.952	115.471	20.530	1.00	63.72	7
ATOM	6112	CA	ARG	C	332	48.440	115.079	19.235	1.00	63.94	6
ATOM	6113	CB	ARG	C	332	49.574	115.223	18.210	1.00	73.34	6
ATOM	6114	CG	ARG	C	332	49.251	114.856	16.779	1.00	75.34	6
ATOM	6115	CD	ARG	C	332	48.450	115.921	16.106	1.00	78.35	6
ATOM	6116	NE	ARG	C	332	48.485	115.736	14.666	1.00	83.95	7
ATOM	6117	CZ	ARG	C	332	47.961	116.591	13.796	1.00	87.69	6
ATOM	6118	NH1	ARG	C	332	47.355	117.694	14.222	1.00	88.64	7
ATOM	6119	NH2	ARG	C	332	48.058	116.352	12.494	1.00	90.07	7
ATOM	6120	C	ARG	C	332	47.948	113.628	19.296	1.00	62.87	6
ATOM	6121	O	ARG	C	332	48.369	112.851	20.157	1.00	61.84	8
ATOM	6122	N	ILE	C	333	47.040	113.279	18.386	1.00	62.90	7
ATOM	6123	CA	ILE	C	333	46.515	111.922	18.289	1.00	60.22	6
ATOM	6124	CB	ILE	C	333	45.088	111.824	18.812	1.00	18.02	6
ATOM	6125	CG2	ILE	C	333	44.509	110.467	18.476	1.00	16.60	6
ATOM	6126	CG1	ILE	C	333	45.096	112.057	20.326	1.00	18.58	6
ATOM	6127	CD1	ILE	C	333	43.788	111.693	21.050	1.00	20.84	6
ATOM	6128	C	ILE	C	333	46.541	111.423	16.848	1.00	60.00	6
ATOM	6129	O	ILE	C	333	45.592	111.616	16.089	1.00	60.88	8
ATOM	6130	N	ARG	C	334	47.645	110.788	16.476	1.00	40.82	7
ATOM	6131	CA	ARG	C	334	47.804	110.249	15.140	1.00	39.79	6
ATOM	6132	CB	ARG	C	334	49.236	109.762	14.940	1.00	48.95	6
ATOM	6133	CG	ARG	C	334	50.248	110.869	14.856	1.00	50.53	6
ATOM	6134	CD	ARG	C	334	51.576	110.327	14.389	1.00	53.11	6
ATOM	6135	NE	ARG	C	334	52.108	109.330	15.310	1.00	55.57	7
ATOM	6136	CZ	ARG	C	334	53.243	108.669	15.104	1.00	58.22	6
ATOM	6137	NH1	ARG	C	334	53.954	108.905	14.007	1.00	59.53	7
ATOM	6138	NH2	ARG	C	334	53.676	107.776	15.986	1.00	59.09	7
ATOM	6139	C	ARG	C	334	46.833	109.104	14.857	1.00	38.72	6
ATOM	6140	O	ARG	C	334	47.088	107.950	15.206	1.00	38.77	8
ATOM	6141	N	THR	C	335	45.719	109.436	14.220	1.00	27.72	7
ATOM	6142	CA	THR	C	335	44.711	108.451	13.858	1.00	26.86	6
ATOM	6143	CB	THR	C	335	43.524	109.147	13.142	1.00	52.92	6
ATOM	6144	OG1	THR	C	335	43.737	110.568	13.137	1.00	52.44	8
ATOM	6145	CG2	THR	C	335	42.214	108.858	13.862	1.00	53.20	6
ATOM	6146	C	THR	C	335	45.374	107.445	12.909	1.00	26.26	6
ATOM	6147	O	THR	C	335	46.487	107.680	12.439	1.00	26.38	8
ATOM	6148	N	VAL	C	336	44.708	106.328	12.625	1.00	19.30	7
ATOM	6149	CA	VAL	C	336	45.295	105.333	11.724	1.00	19.05	6
ATOM	6150	CB	VAL	C	336	44.296	104.234	11.295	1.00	19.08	6
ATOM	6151	CG1	VAL	C	336	45.051	103.070	10.675	1.00	17.32	6

110

```
ATOM    6152   CG2  VAL  C  336    43.466  103.781  12.471  1.00  21.04     6
ATOM    6153   C    VAL  C  336    45.732  106.037  10.454  1.00  19.76     6
ATOM    6154   O    VAL  C  336    46.918  106.156  10.190  1.00  19.67     8
ATOM    6155   N    GLY  C  337    44.758  106.511   9.681  1.00  39.74     7
ATOM    6156   CA   GLY  C  337    45.048  107.181   8.424  1.00  41.07     6
ATOM    6157   C    GLY  C  337    46.305  108.021   8.456  1.00  41.88     6
ATOM    6158   O    GLY  C  337    46.993  108.169   7.441  1.00  41.06     8
ATOM    6159   N    GLU  C  338    46.589  108.580   9.629  1.00  53.46     7
ATOM    6160   CA   GLU  C  338    47.764  109.408   9.828  1.00  55.83     6
ATOM    6161   CB   GLU  C  338    47.595  110.228  11.117  1.00  55.93     6
ATOM    6162   CG   GLU  C  338    48.522  111.446  11.269  1.00  57.68     6
ATOM    6163   CD   GLU  C  338    48.070  112.416  12.375  1.00  59.12     6
ATOM    6164   OE1  GLU  C  338    48.862  113.313  12.738  1.00  59.71     8
ATOM    6165   OE2  GLU  C  338    46.927  112.293  12.877  1.00  58.33     8
ATOM    6166   C    GLU  C  338    48.970  108.466   9.901  1.00  56.52     6
ATOM    6167   O    GLU  C  338    49.940  108.642   9.164  1.00  57.30     8
ATOM    6168   N    LEU  C  339    48.896  107.456  10.768  1.00  46.17     7
ATOM    6169   CA   LEU  C  339    49.972  106.470  10.919  1.00  45.76     6
ATOM    6170   CB   LEU  C  339    49.568  105.398  11.912  1.00  29.77     6
ATOM    6171   CG   LEU  C  339    49.259  105.826  13.334  1.00  28.34     6
ATOM    6172   CD1  LEU  C  339    48.193  104.901  13.876  1.00  27.80     6
ATOM    6173   CD2  LEU  C  339    50.520  105.804  14.183  1.00  26.92     6
ATOM    6174   C    LEU  C  339    50.247  105.785   9.593  1.00  46.77     6
ATOM    6175   O    LEU  C  339    51.394  105.660   9.172  1.00  47.55     8
ATOM    6176   N    MET  C  340    49.170  105.319   8.966  1.00  40.41     7
ATOM    6177   CA   MET  C  340    49.213  104.642   7.675  1.00  41.73     6
ATOM    6178   CB   MET  C  340    47.815  104.102   7.357  1.00  33.54     6
ATOM    6179   CG   MET  C  340    47.726  103.281   6.098  1.00  34.95     6
ATOM    6180   SD   MET  C  340    47.982  104.255   4.606  1.00  37.58    16
ATOM    6181   CE   MET  C  340    46.303  104.575   4.124  1.00  37.44     6
ATOM    6182   C    MET  C  340    49.685  105.624   6.585  1.00  42.70     6
ATOM    6183   O    MET  C  340    50.313  105.237   5.590  1.00  41.52     8
ATOM    6184   N    ALA  C  341    49.379  106.902   6.782  1.00  58.39     7
ATOM    6185   CA   ALA  C  341    49.783  107.922   5.832  1.00  59.26     6
ATOM    6186   CB   ALA  C  341    49.214  109.275   6.234  1.00  54.63     6
ATOM    6187   C    ALA  C  341    51.302  107.975   5.808  1.00  59.78     6
ATOM    6188   O    ALA  C  341    51.918  107.600   4.819  1.00  60.61     8
ATOM    6189   N    ASP  C  342    51.903  108.425   6.905  1.00  54.65     7
ATOM    6190   CA   ASP  C  342    53.360  108.530   7.002  1.00  55.34     6
ATOM    6191   CB   ASP  C  342    53.785  108.750   8.459  1.00  64.26     6
ATOM    6192   CG   ASP  C  342    53.416  110.124   8.978  1.00  65.24     6
ATOM    6193   OD1  ASP  C  342    53.659  111.125   8.266  1.00  66.05     8
ATOM    6194   OD2  ASP  C  342    52.896  110.201  10.112  1.00  65.46     8
ATOM    6195   C    ASP  C  342    54.121  107.320   6.447  1.00  55.56     6
ATOM    6196   O    ASP  C  342    55.191  107.467   5.850  1.00  54.83     8
ATOM    6197   N    GLN  C  343    53.573  106.128   6.656  1.00  49.93     7
ATOM    6198   CA   GLN  C  343    54.217  104.916   6.183  1.00  49.77     6
ATOM    6199   CB   GLN  C  343    53.488  103.694   6.731  1.00  55.92     6
ATOM    6200   CG   GLN  C  343    54.392  102.489   6.863  1.00  56.26     6
ATOM    6201   CD   GLN  C  343    55.600  102.773   7.735  1.00  55.71     6
ATOM    6202   OE1  GLN  C  343    55.526  102.743   8.965  1.00  54.57     8
ATOM    6203   NE2  GLN  C  343    56.722  103.072   7.094  1.00  55.01     7
ATOM    6204   C    GLN  C  343    54.201  104.903   4.663  1.00  50.19     6
ATOM    6205   O    GLN  C  343    55.062  104.299   4.019  1.00  50.28     8
ATOM    6206   N    PHE  C  344    53.201  105.575   4.102  1.00  68.25     7
ATOM    6207   CA   PHE  C  344    53.042  105.695   2.657  1.00  68.99     6
```

111

```
ATOM   6208  CB   PHE C 344      51.628 106.199   2.331  1.00 53.22      6
ATOM   6209  CG   PHE C 344      51.092 105.758   0.986  1.00 52.79      6
ATOM   6210  CD1  PHE C 344      49.781 106.061   0.620  1.00 53.28      6
ATOM   6211  CD2  PHE C 344      51.870 105.031   0.106  1.00 52.38      6
ATOM   6212  CE1  PHE C 344      49.257 105.648  -0.589  1.00 53.18      6
ATOM   6213  CE2  PHE C 344      51.350 104.614  -1.107  1.00 52.97      6
ATOM   6214  CZ   PHE C 344      50.039 104.925  -1.452  1.00 53.08      6
ATOM   6215  C    PHE C 344      54.088 106.735   2.263  1.00 69.69      6
ATOM   6216  O    PHE C 344      54.635 106.701   1.165  1.00 70.88      8
ATOM   6217  N    ARG C 345      54.359 107.663   3.177  1.00 46.04      7
ATOM   6218  CA   ARG C 345      55.365 108.684   2.937  1.00 46.35      6
ATOM   6219  CB   ARG C 345      55.367 109.716   4.068  1.00 60.38      6
ATOM   6220  CG   ARG C 345      54.080 110.523   4.148  1.00 61.90      6
ATOM   6221  CD   ARG C 345      54.147 111.609   5.213  1.00 62.12      6,
ATOM   6222  NE   ARG C 345      52.979 112.495   5.186  1.00 61.97      7
ATOM   6223  CZ   ARG C 345      51.801 112.224   5.747  1.00 61.97      6
ATOM   6224  NH1  ARG C 345      51.617 111.081   6.396  1.00 61.31      7
ATOM   6225  NH2  ARG C 345      50.800 113.096   5.656  1.00 62.32      7
ATOM   6226  C    ARG C 345      56.701 107.954   2.879  1.00 46.29      6
ATOM   6227  O    ARG C 345      57.502 108.172   1.974  1.00 45.82      8
ATOM   6228  N    VAL C 346      56.917 107.059   3.837  1.00 59.02      7
ATOM   6229  CA   VAL C 346      58.148 106.272   3.909  1.00 59.39      6
ATOM   6230  CB   VAL C 346      58.072 105.227   5.042  1.00106.13      6
ATOM   6231  CG1  VAL C 346      59.400 104.491   5.167  1.00106.98      6
ATOM   6232  CG2  VAL C 346      57.705 105.908   6.348  1.00106.03      6
ATOM   6233  C    VAL C 346      58.418 105.533   2.603  1.00 59.04      6
ATOM   6234  O    VAL C 346      59.521 105.588   2.059  1.00 58.47      8
ATOM   6235  N    GLY C 347      57.402 104.830   2.113  1.00 36.64      7
ATOM   6236  CA   GLY C 347      57.550 104.086   0.880  1.00 38.67      6
ATOM   6237  C    GLY C 347      58.151 104.955  -0.197  1.00 40.04      6
ATOM   6238  O    GLY C 347      59.142 104.591  -0.818  1.00 38.54      8
ATOM   6239  N    LEU C 348      57.550 106.116  -0.410  1.00 81.14      7
ATOM   6240  CA   LEU C 348      58.032 107.041  -1.415  1.00 83.72      6
ATOM   6241  CB   LEU C 348      57.045 108.198  -1.557  1.00 23.40      6
ATOM   6242  CG   LEU C 348      55.937 107.959  -2.591  1.00 21.23      6
ATOM   6243  CD1  LEU C 348      55.523 106.507  -2.605  1.00 21.40      6
ATOM   6244  CD2  LEU C 348      54.750 108.847  -2.277  1.00 20.29      6
ATOM   6245  C    LEU C 348      59.430 107.551  -1.088  1.00 87.02      6
ATOM   6246  O    LEU C 348      60.176 107.943  -1.982  1.00 87.49      8
ATOM   6247  N    ALA C 349      59.794 107.536   0.190  1.00205.10      7
ATOM   6248  CA   ALA C 349      61.122 107.987   0.597  1.00208.87      6
ATOM   6249  CB   ALA C 349      61.181 108.163   2.107  1.00160.69      6
ATOM   6250  C    ALA C 349      62.125 106.933   0.157  1.00208.87      6
ATOM   6251  O    ALA C 349      63.265 106.903   0.622  1.00208.87      8
ATOM   6252  N    ARG C 350      61.680 106.069  -0.751  1.00 62.51      7
ATOM   6253  CA   ARG C 350      62.495 104.983  -1.264  1.00 63.53      6
ATOM   6254  CB   ARG C 350      62.248 103.770  -0.392  1.00 74.24      6
ATOM   6255  CG   ARG C 350      62.658 104.075   1.026  1.00 75.44      6
ATOM   6256  CD   ARG C 350      61.948 103.257   2.077  1.00 75.95      6
ATOM   6257  NE   ARG C 350      62.617 103.445   3.360  1.00 76.40      7
ATOM   6258  CZ   ARG C 350      62.274 102.835   4.485  1.00 77.84      6
ATOM   6259  NH1  ARG C 350      61.251 101.987   4.500  1.00 78.67      7
ATOM   6260  NH2  ARG C 350      62.971 103.061   5.589  1.00 79.33      7
ATOM   6261  C    ARG C 350      62.158 104.712  -2.727  1.00 64.82      6
ATOM   6262  O    ARG C 350      63.020 104.347  -3.525  1.00 65.28      8
ATOM   6263  N    LEU C 351      60.891 104.890  -3.072  1.00 63.44      7
```

112

```
ATOM   6264  CA   LEU C 351      60.462 104.716  -4.444  1.00 64.60      6
ATOM   6265  CB   LEU C 351      59.025 105.189  -4.612  1.00 69.32      6
ATOM   6266  CG   LEU C 351      58.740 105.890  -5.937  1.00 70.58      6
ATOM   6267  CD1  LEU C 351      58.831 104.902  -7.077  1.00 69.70      6
ATOM   6268  CD2  LEU C 351      57.374 106.517  -5.887  1.00 69.70      6
ATOM   6269  C    LEU C 351      61.379 105.643  -5.196  1.00 65.69      6
ATOM   6270  O    LEU C 351      62.157 105.214  -6.032  1.00 66.02      8
ATOM   6271  N    ALA C 352      61.290 106.924  -4.856  1.00 97.21      7
ATOM   6272  CA   ALA C 352      62.096 107.968  -5.477  1.00 98.34      6
ATOM   6273  CB   ALA C 352      61.961 109.260  -4.693  1.00107.71      6
ATOM   6274  C    ALA C 352      63.566 107.581  -5.598  1.00 98.88      6
ATOM   6275  O    ALA C 352      64.119 107.579  -6.698  1.00 99.53      8
ATOM   6276  N    ARG C 353      64.208 107.271  -4.473  1.00 45.94      7
ATOM   6277  CA   ARG C 353      65.609 106.871  -4.514  1.00 47.38      6
ATOM   6278  CB   ARG C 353      65.973 106.085  -3.254  1.00115.76      6
ATOM   6279  CG   ARG C 353      65.775 106.841  -1.955  1.00117.15      6
ATOM   6280  CD   ARG C 353      66.825 107.914  -1.782  1.00118.82      6
ATOM   6281  NE   ARG C 353      66.625 108.662  -0.546  1.00120.11      7
ATOM   6282  CZ   ARG C 353      67.444 109.613  -0.108  1.00121.05      6
ATOM   6283  NH1  ARG C 353      68.529 109.935  -0.805  1.00120.67      7
ATOM   6284  NH2  ARG C 353      67.177 110.245   1.028  1.00121.41      7
ATOM   6285  C    ARG C 353      65.763 105.972  -5.742  1.00 48.30      6
ATOM   6286  O    ARG C 353      66.610 106.199  -6.605  1.00 49.16      8
ATOM   6287  N    GLY C 354      64.908 104.959  -5.820  1.00160.51      7
ATOM   6288  CA   GLY C 354      64.955 104.049  -6.944  1.00160.56      6
ATOM   6289  C    GLY C 354      64.848 104.787  -8.263  1.00160.66      6
ATOM   6290  O    GLY C 354      65.679 104.601  -9.152  1.00161.53      8
ATOM   6291  N    VAL C 355      63.835 105.638  -8.395  1.00 80.66      7
ATOM   6292  CA   VAL C 355      63.653 106.371  -9.633  1.00 80.30      6
ATOM   6293  CB   VAL C 355      62.332 107.204  -9.622  1.00 45.69      6
ATOM   6294  CG1  VAL C 355      62.416 108.360  -8.651  1.00 45.97      6
ATOM   6295  CG2  VAL C 355      62.024 107.704 -11.027  1.00 45.21      6
ATOM   6296  C    VAL C 355      64.861 107.258  -9.939  1.00 80.64      6
ATOM   6297  O    VAL C 355      65.468 107.114 -10.998  1.00 81.25      8
ATOM   6298  N    ARG C 356      65.226 108.152  -9.022  1.00 80.64      7
ATOM   6299  CA   ARG C 356      66.383 109.022  -9.238  1.00 80.31      6
ATOM   6300  CB   ARG C 356      66.842 109.659  -7.923  1.00101.69      6
ATOM   6301  CG   ARG C 356      68.368 109.649  -7.714  1.00101.76      6
ATOM   6302  CD   ARG C 356      69.130 110.592  -8.662  1.00102.00      6
ATOM   6303  NE   ARG C 356      70.579 110.374  -8.601  1.00101.48      7
ATOM   6304  CZ   ARG C 356      71.496 111.201  -9.105  1.00101.01      6
ATOM   6305  NH1  ARG C 356      71.127 112.321  -9.715  1.00100.84      7
ATOM   6306  NH2  ARG C 356      72.787 110.906  -8.997  1.00101.02      7
ATOM   6307  C    ARG C 356      67.522 108.191  -9.800  1.00 80.38      6
ATOM   6308  O    ARG C 356      68.235 108.631 -10.702  1.00 79.87      8
ATOM   6309  N    GLU C 357      67.685 106.993  -9.241  1.00 70.79      7
ATOM   6310  CA   GLU C 357      68.723 106.060  -9.654  1.00 71.20      6
ATOM   6311  CB   GLU C 357      68.626 104.772  -8.836  1.00197.19      6
ATOM   6312  CG   GLU C 357      69.548 103.661  -9.312  1.00199.52      6
ATOM   6313  CD   GLU C 357      71.008 103.958  -9.048  1.00200.44      6
ATOM   6314  OE1  GLU C 357      71.479 105.043  -9.451  1.00202.08      8
ATOM   6315  OE2  GLU C 357      71.687 103.101  -8.441  1.00200.31      8
ATOM   6316  C    GLU C 357      68.588 105.724 -11.128  1.00 70.90      6
ATOM   6317  O    GLU C 357      69.535 105.887 -11.891  1.00 70.88      8
ATOM   6318  N    ARG C 358      67.405 105.257 -11.521  1.00 98.92      7
ATOM   6319  CA   ARG C 358      67.143 104.884 -12.911  1.00 99.88      6
```

113

```
ATOM   6320   CB   ARG C 358    65.758 104.240 -13.040  1.00  90.72    6
ATOM   6321   CG   ARG C 358    65.413 103.224 -11.957  1.00  90.05    6
ATOM   6322   CD   ARG C 358    66.334 102.006 -11.935  1.00  88.23    6
ATOM   6323   NE   ARG C 358    65.958 101.101 -10.849  1.00  86.36    7
ATOM   6324   CZ   ARG C 358    66.613  99.992 -10.520  1.00  85.41    6
ATOM   6325   NH1  ARG C 358    67.696  99.623 -11.189  1.00  84.88    7
ATOM   6326   NH2  ARG C 358    66.181  99.250  -9.513  1.00  85.19    7
ATOM   6327   C    ARG C 358    67.229 106.086 -13.855  1.00 101.13    6
ATOM   6328   O    ARG C 358    67.926 106.033 -14.871  1.00 101.33    8
ATOM   6329   N    MET C 359    66.508 107.155 -13.521  1.00  78.58    7
ATOM   6330   CA   MET C 359    66.510 108.377 -14.326  1.00  80.42    6
ATOM   6331   CB   MET C 359    66.186 109.607 -13.457  1.00  98.08    6
ATOM   6332   CG   MET C 359    64.756 109.687 -12.898  1.00 100.34    6
ATOM   6333   SD   MET C 359    63.524 110.434 -14.000  1.00 101.54   16
ATOM   6334   CE   MET C 359    63.522 112.080 -13.421  1.00 101.52    6
ATOM   6335   C    MET C 359    67.886 108.561 -14.951  1.00  81.29    6
ATOM   6336   O    MET C 359    68.002 108.834 -16.141  1.00  81.42    8
ATOM   6337   N    VAL C 360    68.926 108.397 -14.138  1.00 137.54    7
ATOM   6338   CA   VAL C 360    70.300 108.547 -14.600  1.00 139.21    6
ATOM   6339   CB   VAL C 360    71.267 108.621 -13.408  1.00  61.42    6
ATOM   6340   CG1  VAL C 360    72.711 108.678 -13.883  1.00  61.29    6
ATOM   6341   CG2  VAL C 360    70.942 109.837 -12.591  1.00  61.94    6
ATOM   6342   C    VAL C 360    70.726 107.419 -15.527  1.00 140.74    6
ATOM   6343   O    VAL C 360    70.462 107.475 -16.725  1.00 141.23    8
ATOM   6344   N    MET C 361    71.380 106.402 -14.968  1.00 105.12    7
ATOM   6345   CA   MET C 361    71.857 105.263 -15.743  1.00 106.42    6
ATOM   6346   CB   MET C 361    71.439 103.927 -15.114  1.00 110.40    6
ATOM   6347   CG   MET C 361    71.938 103.629 -13.716  1.00 112.79    6
ATOM   6348   SD   MET C 361    71.479 101.941 -13.236  1.00 113.05   16
ATOM   6349   CE   MET C 361    69.714 102.024 -13.313  1.00 113.30    6
ATOM   6350   C    MET C 361    71.259 105.295 -17.128  1.00 106.56    6
ATOM   6351   O    MET C 361    71.868 105.790 -18.076  1.00 107.71    8
ATOM   6352   N    GLY C 362    70.036 104.776 -17.205  1.00  77.49    7
ATOM   6353   CA   GLY C 362    69.305 104.676 -18.453  1.00  77.57    6
ATOM   6354   C    GLY C 362    69.388 105.847 -19.402  1.00  77.61    6
ATOM   6355   O    GLY C 362    69.930 106.897 -19.070  1.00  78.30    8
ATOM   6356   N    SER C 363    68.842 105.650 -20.597  1.00 117.73    7
ATOM   6357   CA   SER C 363    68.822 106.685 -21.620  1.00 118.18    6
ATOM   6358   CB   SER C 363    68.919 106.057 -23.015  1.00 165.58    6
ATOM   6359   OG   SER C 363    68.963 107.047 -24.028  1.00 165.87    8
ATOM   6360   C    SER C 363    67.511 107.450 -21.487  1.00 118.23    6
ATOM   6361   O    SER C 363    66.501 106.897 -21.058  1.00 118.26    8
ATOM   6362   N    PRO C 364    67.511 108.735 -21.861  1.00 137.80    7
ATOM   6363   CD   PRO C 364    68.608 109.457 -22.525  1.00 159.94    6
ATOM   6364   CA   PRO C 364    66.316 109.575 -21.780  1.00 137.10    6
ATOM   6365   CB   PRO C 364    66.791 110.902 -22.367  1.00 160.15    6
ATOM   6366   CG   PRO C 364    67.859 110.479 -23.332  1.00 160.69    6
ATOM   6367   C    PRO C 364    65.081 109.033 -22.499  1.00 136.05    6
ATOM   6368   O    PRO C 364    63.962 109.211 -22.013  1.00 136.06    8
ATOM   6369   N    ASP C 365    65.275 108.375 -23.643  1.00  91.02    7
ATOM   6370   CA   ASP C 365    64.146 107.837 -24.415  1.00  89.06    6
ATOM   6371   CB   ASP C 365    64.462 107.865 -25.918  1.00 162.10    6
ATOM   6372   CG   ASP C 365    63.205 107.890 -26.783  1.00 163.67    6
ATOM   6373   OD1  ASP C 365    62.364 106.980 -26.647  1.00 165.13    8
ATOM   6374   OD2  ASP C 365    63.058 108.823 -27.601  1.00 164.24    8
ATOM   6375   C    ASP C 365    63.768 106.416 -23.994  1.00  87.01    6
```

114

```
ATOM   6376  O    ASP C 365      62.605 106.016 -24.084  1.00 86.49      8
ATOM   6377  N    THR C 366      64.753 105.655 -23.535  1.00177.30      7
ATOM   6378  CA   THR C 366      64.495 104.298 -23.090  1.00175.40      6
ATOM   6379  CB   THR C 366      65.800 103.518 -22.886  1.00130.83      6
ATOM   6380  OG1  THR C 366      66.573 103.560 -24.091  1.00131.14      8
ATOM   6381  CG2  THR C 366      65.504 102.069 -22.527  1.00131.24      6
ATOM   6382  C    THR C 366      63.766 104.385 -21.759  1.00173.92      6
ATOM   6383  O    THR C 366      63.205 103.402 -21.282  1.00175.00      8
ATOM   6384  N    LEU C 367      63.773 105.578 -21.170  1.00 79.11      7
ATOM   6385  CA   LEU C 367      63.127 105.812 -19.884  1.00 75.66      6
ATOM   6386  CB   LEU C 367      63.909 106.844 -19.080  1.00 69.38      6
ATOM   6387  CG   LEU C 367      65.295 106.413 -18.623  1.00 68.94      6
ATOM   6388  CD1  LEU C 367      65.850 107.463 -17.690  1.00 68.92      6
ATOM   6389  CD2  LEU C 367      65.214 105.068 -17.918  1.00 69.19      6
ATOM   6390  C    LEU C 367      61.692 106.281 -19.989  1.00 73.59      6
ATOM   6391  O    LEU C 367      61.388 107.221 -20.713  1.00 73.53      8
ATOM   6392  N    THR C 368      60.813 105.620 -19.249  1.00 96.65      7
ATOM   6393  CA   THR C 368      59.402 105.973 -19.224  1.00 94.95      6
ATOM   6394  CB   THR C 368      58.624 105.319 -20.382  1.00107.98      6
ATOM   6395  OG1  THR C 368      58.611 103.899 -20.207  1.00107.29      8
ATOM   6396  CG2  THR C 368      59.261 105.655 -21.717  1.00108.58      6
ATOM   6397  C    THR C 368      58.837 105.450 -17.910  1.00 93.31      6
ATOM   6398  O    THR C 368      59.460 104.619 -17.245  1.00 94.32      8
ATOM   6399  N    PRO C 369      57.655 105.935 -17.508  1.00 69.12      7
ATOM   6400  CD   PRO C 369      56.695 106.779 -18.229  1.00 28.46      6
ATOM   6401  CA   PRO C 369      57.075 105.451 -16.255  1.00 67.49      6
ATOM   6402  CB   PRO C 369      55.753 106.202 -16.178  1.00 28.00      6
ATOM   6403  CG   PRO C 369      55.401 106.382 -17.583  1.00 27.23      6
ATOM   6404  C    PRO C 369      56.882 103.953 -16.385  1.00 66.12      6
ATOM   6405  O    PRO C 369      57.017 103.401 -17.476  1.00 66.14      8
ATOM   6406  N    ALA C 370      56.564 103.292 -15.283  1.00 93.49      7
ATOM   6407  CA   ALA C 370      56.382 101.851 -15.314  1.00 91.62      6
ATOM   6408  CB   ALA C 370      55.515 101.446 -16.497  1.00 18.84      6
ATOM   6409  C    ALA C 370      57.754 101.223 -15.444  1.00 90.43      6
ATOM   6410  O    ALA C 370      57.928 100.042 -15.154  1.00 89.81      8
ATOM   6411  N    LYS C 371      58.729 102.023 -15.874  1.00 47.06      7
ATOM   6412  CA   LYS C 371      60.089 101.532 -16.046  1.00 46.49      6
ATOM   6413  CB   LYS C 371      60.581 101.857 -17.458  1.00103.72      6
ATOM   6414  CG   LYS C 371      59.697 101.217 -18.521  1.00104.63      6
ATOM   6415  CD   LYS C 371      60.192 101.434 -19.935  1.00104.61      6
ATOM   6416  CE   LYS C 371      59.220 100.810 -20.932  1.00105.32      6
ATOM   6417  NZ   LYS C 371      57.824 101.341 -20.797  1.00103.82      7
ATOM   6418  C    LYS C 371      61.057 102.057 -14.995  1.00 45.54      6
ATOM   6419  O    LYS C 371      61.917 101.306 -14.512  1.00 44.46      8
ATOM   6420  N    LEU C 372      60.909 103.338 -14.645  1.00 69.08      7
ATOM   6421  CA   LEU C 372      61.749 103.989 -13.624  1.00 68.75      6
ATOM   6422  CB   LEU C 372      61.683 105.522 -13.739  1.00 76.05      6
ATOM   6423  CG   LEU C 372      62.355 106.304 -14.874  1.00 75.32      6
ATOM   6424  CD1  LEU C 372      61.856 107.738 -14.834  1.00 74.70      6
ATOM   6425  CD2  LEU C 372      63.874 106.257 -14.740  1.00 76.45      6
ATOM   6426  C    LEU C 372      61.180 103.592 -12.274  1.00 67.85      6
ATOM   6427  O    LEU C 372      61.875 103.610 -11.253  1.00 66.75      8
ATOM   6428  N    VAL C 373      59.894 103.248 -12.307  1.00 58.10      7
ATOM   6429  CA   VAL C 373      59.124 102.836 -11.146  1.00 57.39      6
ATOM   6430  CB   VAL C 373      57.690 103.234 -11.324  1.00 57.10      6
ATOM   6431  CG1  VAL C 373      56.922 102.957 -10.059  1.00 57.34      6
```

115

```
ATOM   6432  CG2 VAL C 373      57.621 104.691 -11.740  1.00 56.99      6
ATOM   6433  C   VAL C 373      59.174 101.329 -11.000  1.00 58.00      8
ATOM   6434  O   VAL C 373      59.004 100.599 -11.978  1.00 58.26      8
ATOM   6435  N   ASN C 374      59.390 100.862  -9.774  1.00 33.15      7
ATOM   6436  CA  ASN C 374      59.493  99.425  -9.516  1.00 34.29      6
ATOM   6437  CB  ASN C 374      60.964  99.025  -9.321  1.00128.77      6
ATOM   6438  CG  ASN C 374      61.844  99.414 -10.501  1.00130.53      6
ATOM   6439  OD1 ASN C 374      61.560  99.063 -11.648  1.00132.45      8
ATOM   6440  ND2 ASN C 374      62.927 100.132 -10.219  1.00130.55      7
ATOM   6441  C   ASN C 374      58.695  98.997  -8.295  1.00 34.29      6
ATOM   6442  O   ASN C 374      59.224  98.306  -7.424  1.00 33.45      8
ATOM   6443  N   SER C 375      57.427  99.416  -8.266  1.00 44.69      7
ATOM   6444  CA  SER C 375      56.444  99.141  -7.210  1.00 46.27      6
ATOM   6445  CB  SER C 375      55.100  98.822  -7.863  1.00208.87      6
ATOM   6446  OG  SER C 375      54.709  99.864  -8.744  1.00208.87      8
ATOM   6447  C   SER C 375      56.778  98.049  -6.196  1.00 46.12      6
ATOM   6448  O   SER C 375      56.040  97.066  -6.062  1.00 45.87      8
ATOM   6449  N   ARG C 376      57.879  98.255  -5.475  1.00 32.74      7
ATOM   6450  CA  ARG C 376      58.375  97.334  -4.458  1.00 32.98      6
ATOM   6451  CB  ARG C 376      59.766  96.821  -4.840  1.00142.46      6
ATOM   6452  CG  ARG C 376      59.794  95.829  -5.999  1.00146.04      6
ATOM   6453  CD  ARG C 376      59.085  94.530  -5.637  1.00147.74      6
ATOM   6454  NE  ARG C 376      59.292  93.491  -6.642  1.00149.33      7
ATOM   6455  CZ  ARG C 376      58.718  92.292  -6.604  1.00149.85      6
ATOM   6456  NH1 ARG C 376      57.895  91.977  -5.612  1.00150.47      7
ATOM   6457  NH2 ARG C 376      58.967  91.406  -7.558  1.00149.73      7
ATOM   6458  C   ARG C 376      58.453  98.018  -3.101  1.00 32.39      6
ATOM   6459  O   ARG C 376      58.211  97.395  -2.076  1.00 31.97      8
ATOM   6460  N   PRO C 377      58.804  99.314  -3.074  1.00 46.43      7
ATOM   6461  CD  PRO C 377      59.159 100.179  -4.213  1.00162.38      6
ATOM   6462  CA  PRO C 377      58.906 100.066  -1.819  1.00 45.85      6
ATOM   6463  CB  PRO C 377      59.516 101.392  -2.261  1.00161.93      6
ATOM   6464  CG  PRO C 377      58.963 101.562  -3.635  1.00162.91      6
ATOM   6465  C   PRO C 377      57.576 100.259  -1.103  1.00 44.99      6
ATOM   6466  O   PRO C 377      57.491 100.043   0.101  1.00 44.13      8
ATOM   6467  N   LEU C 378      56.544 100.675  -1.830  1.00 64.77      7
ATOM   6468  CA  LEU C 378      55.242 100.876  -1.203  1.00 64.97      6
ATOM   6469  CB  LEU C 378      54.240 101.449  -2.199  1.00 83.43      6
ATOM   6470  CG  LEU C 378      54.400 102.963  -2.337  1.00 84.69      6
ATOM   6471  CD1 LEU C 378      55.849 103.294  -2.676  1.00 85.16      6
ATOM   6472  CD2 LEU C 378      53.455 103.489  -3.402  1.00 84.91      6
ATOM   6473  C   LEU C 378      54.722  99.581  -0.605  1.00 64.76      6
ATOM   6474  O   LEU C 378      53.809  99.588   0.214  1.00 65.34      8
ATOM   6475  N   GLU C 379      55.296  98.466  -1.038  1.00 42.46      7
ATOM   6476  CA  GLU C 379      54.943  97.166  -0.497  1.00 41.70      6
ATOM   6477  CB  GLU C 379      54.995  96.091  -1.580  1.00100.82      6
ATOM   6478  CG  GLU C 379      54.363  94.776  -1.173  1.00103.75      6
ATOM   6479  CD  GLU C 379      52.895  94.920  -0.812  1.00105.94      6
ATOM   6480  OE1 GLU C 379      52.151  95.538  -1.601  1.00107.50      8
ATOM   6481  OE2 GLU C 379      52.481  94.409   0.254  1.00107.21      8
ATOM   6482  C   GLU C 379      56.117  97.033   0.457  1.00 40.89      6
ATOM   6483  O   GLU C 379      57.064  97.811   0.365  1.00 40.81      8
ATOM   6484  N   ALA C 380      56.085  96.072   1.365  1.00100.07      7
ATOM   6485  CA  ALA C 380      57.179  95.951   2.319  1.00 98.75      6
ATOM   6486  CB  ALA C 380      58.546  96.036   1.603  1.00 32.13      6
ATOM   6487  C   ALA C 380      57.030  97.111   3.299  1.00 97.64      6
```

116

```
ATOM   6488  O    ALA C 380     56.416  96.973   4.352  1.00 97.70      8
ATOM   6489  N    ALA C 381     57.568  98.267   2.929  1.00 64.15      7
ATOM   6490  CA   ALA C 381     57.505  99.443   3.788  1.00 63.00      6
ATOM   6491  CB   ALA C 381     58.055 100.662   3.053  1.00 95.29      6
ATOM   6492  C    ALA C 381     56.089  99.711   4.259  1.00 62.40      6
ATOM   6493  O    ALA C 381     55.882 100.389   5.260  1.00 62.60      8
ATOM   6494  N    LEU C 382     55.110  99.174   3.543  1.00 43.72      7
ATOM   6495  CA   LEU C 382     53.730  99.385   3.939  1.00 43.03      6
ATOM   6496  CB   LEU C 382     52.910  99.874   2.755  1.00 18.57      6
ATOM   6497  CG   LEU C 382     51.678 100.682   3.149  1.00 17.35      6
ATOM   6498  CD1  LEU C 382     52.011 101.661   4.281  1.00 16.89      6
ATOM   6499  CD2  LEU C 382     51.174 101.432   1.931  1.00 18.60      6
ATOM   6500  C    LEU C 382     53.094  98.137   4.533  1.00 44.12      6
ATOM   6501  O    LEU C 382     52.279  98.223   5.453  1.00 43.72      8
ATOM   6502  N    ARG C 383     53.457  96.972   4.013  1.00111.91      7
ATOM   6503  CA   ARG C 383     52.903  95.743   4.554  1.00113.91      6
ATOM   6504  CB   ARG C 383     53.065  94.581   3.566  1.00196.78      6
ATOM   6505  CG   ARG C 383     52.286  93.329   3.965  1.00200.48      6
ATOM   6506  CD   ARG C 383     52.355  92.239   2.902  1.00203.04      6
ATOM   6507  NE   ARG C 383     51.615  91.043   3.305  1.00203.93      7
ATOM   6508  CZ   ARG C 383     51.507  89.943   2.565  1.00204.05      6
ATOM   6509  NH1  ARG C 383     52.091  89.879   1.374  1.00205.14      7
ATOM   6510  NH2  ARG C 383     50.816  88.904   3.015  1.00203.29      7
ATOM   6511  C    ARG C 383     53.667  95.462   5.840  1.00113.54      6
ATOM   6512  O    ARG C 383     53.136  94.859   6.774  1.00114.76      8
ATOM   6513  N    GLU C 384     54.914  95.924   5.882  1.00 34.91      7
ATOM   6514  CA   GLU C 384     55.758  95.738   7.052  1.00 32.88      6
ATOM   6515  CB   GLU C 384     57.159  96.280   6.797  1.00 64.39      6
ATOM   6516  CG   GLU C 384     58.111  96.040   7.938  1.00 65.02      6
ATOM   6517  CD   GLU C 384     59.470  95.580   7.467  1.00 65.71      6
ATOM   6518  OE1  GLU C 384     60.072  96.266   6.612  1.00 66.11      8
ATOM   6519  OE2  GLU C 384     59.936  94.529   7.956  1.00 66.58      8
ATOM   6520  C    GLU C 384     55.133  96.458   8.230  1.00 31.68      6
ATOM   6521  O    GLU C 384     55.093  95.928   9.337  1.00 32.24      8
ATOM   6522  N    PHE C 385     54.636  97.669   7.996  1.00 42.85      7
ATOM   6523  CA   PHE C 385     53.993  98.427   9.067  1.00 42.02      6
ATOM   6524  CB   PHE C 385     53.570  99.817   8.589  1.00 39.62      6
ATOM   6525  CG   PHE C 385     52.555 100.480   9.484  1.00 39.09      6
ATOM   6526  CD1  PHE C 385     52.914 100.936  10.746  1.00 38.59      6
ATOM   6527  CD2  PHE C 385     51.236 100.607   9.082  1.00 39.56      6
ATOM   6528  CE1  PHE C 385     51.977 101.504  11.594  1.00 37.75      6
ATOM   6529  CE2  PHE C 385     50.293 101.171   9.922  1.00 39.49      6
ATOM   6530  CZ   PHE C 385     50.662 101.620  11.179  1.00 38.51      6
ATOM   6531  C    PHE C 385     52.756  97.691   9.555  1.00 40.74      6
ATOM   6532  O    PHE C 385     52.773  97.085  10.621  1.00 40.68      8
ATOM   6533  N    PHE C 386     51.688  97.740   8.765  1.00 28.00      7
ATOM   6534  CA   PHE C 386     50.450  97.090   9.142  1.00 27.86      6
ATOM   6535  CB   PHE C 386     49.583  96.816   7.916  1.00 48.14      6
ATOM   6536  CG   PHE C 386     48.604  97.905   7.641  1.00 47.19      6
ATOM   6537  CD1  PHE C 386     48.912  98.915   6.739  1.00 46.13      6
ATOM   6538  CD2  PHE C 386     47.418  97.989   8.375  1.00 46.56      6
ATOM   6539  CE1  PHE C 386     48.060 100.004   6.570  1.00 44.96      6
ATOM   6540  CE2  PHE C 386     46.557  99.075   8.217  1.00 44.71      6
ATOM   6541  CZ   PHE C 386     46.880 100.085   7.314  1.00 44.87      6
ATOM   6542  C    PHE C 386     50.594  95.824   9.966  1.00 28.13      6
ATOM   6543  O    PHE C 386     49.966  95.712  11.009  1.00 27.05      8
```

117

```
ATOM   6544  N    SER C 387      51.401  94.862   9.533  1.00 26.30      7
ATOM   6545  CA   SER C 387      51.539  93.658  10.342  1.00 26.99      6
ATOM   6546  CB   SER C 387      51.007  92.444   9.588  1.00123.05      6
ATOM   6547  OG   SER C 387      51.207  91.255  10.333  1.00126.81      8
ATOM   6548  C    SER C 387      52.967  93.399  10.753  1.00 26.19      6
ATOM   6549  O    SER C 387      53.561  92.448  10.290  1.00 25.05      8
ATOM   6550  N    ARG C 388      53.502  94.244  11.625  1.00 37.99      7
ATOM   6551  CA   ARG C 388      54.870  94.131  12.114  1.00 38.08      6
ATOM   6552  CB   ARG C 388      55.883  94.089  10.960  1.00112.87      6
ATOM   6553  CG   ARG C 388      56.209  92.692  10.435  1.00116.98      6
ATOM   6554  CD   ARG C 388      56.968  92.739   9.115  1.00119.48      6
ATOM   6555  NE   ARG C 388      57.168  91.404   8.555  1.00121.55      7
ATOM   6556  CZ   ARG C 388      57.689  91.169   7.355  1.00122.29      6
ATOM   6557  NH1  ARG C 388      58.063  92.179   6.585  1.00121.93      7
ATOM   6558  NH2  ARG C 388      57.838  89.925   6.925  1.00123.26      7
ATOM   6559  C    ARG C 388      55.160  95.331  12.992  1.00 35.86      6
ATOM   6560  O    ARG C 388      56.278  95.533  13.454  1.00 36.12      8
ATOM   6561  N    SER C 389      54.144  96.150  13.197  1.00 45.39      7
ATOM   6562  CA   SER C 389      54.284  97.320  14.046  1.00 43.00      6
ATOM   6563  CB   SER C 389      53.325  98.432  13.611  1.00 39.12      6
ATOM   6564  OG   SER C 389      53.341  99.510  14.528  1.00 35.94      8
ATOM   6565  C    SER C 389      53.889  96.839  15.419  1.00 42.79      6
ATOM   6566  O    SER C 389      53.447  95.696  15.573  1.00 42.20      8
ATOM   6567  N    GLN C 390      54.084  97.693  16.419  1.00 43.33      7
ATOM   6568  CA   GLN C 390      53.683  97.352  17.770  1.00 41.60      6
ATOM   6569  CB   GLN C 390      54.782  97.640  18.811  1.00 54.20      6
ATOM   6570  CG   GLN C 390      55.759  98.776  18.515  1.00 55.42      6
ATOM   6571  CD   GLN C 390      56.733  99.036  19.681  1.00 57.75      6
ATOM   6572  OE1  GLN C 390      57.351  98.112  20.216  1.00 57.83      8
ATOM   6573  NE2  GLN C 390      56.871 100.304  20.066  1.00 59.66      7
ATOM   6574  C    GLN C 390      52.462  98.195  18.012  1.00 39.24      6
ATOM   6575  O    GLN C 390      51.910  98.210  19.096  1.00 39.78      8
ATOM   6576  N    LEU C 391      52.048  98.904  16.973  1.00 22.08      7
ATOM   6577  CA   LEU C 391      50.861  99.723  17.069  1.00 21.29      6
ATOM   6578  CB   LEU C 391      51.148 101.173  16.652  1.00 15.77      6
ATOM   6579  CG   LEU C 391      50.698 102.369  17.508  1.00 13.87      6
ATOM   6580  CD1  LEU C 391      51.031 102.192  18.960  1.00 13.87      6
ATOM   6581  CD2  LEU C 391      51.411 103.590  17.014  1.00 13.87      6
ATOM   6582  C    LEU C 391      49.820  99.089  16.193  1.00 22.68      6
ATOM   6583  O    LEU C 391      48.774  99.678  15.942  1.00 22.06      8
ATOM   6584  N    SER C 392      50.139  97.909  15.671  1.00 43.95      7
ATOM   6585  CA   SER C 392      49.164  97.169  14.890  1.00 46.21      6
ATOM   6586  CB   SER C 392      49.715  96.792  13.557  1.00 85.53      6
ATOM   6587  OG   SER C 392      48.836  95.907  12.903  1.00 90.30      8
ATOM   6588  C    SER C 392      48.967  95.890  15.691  1.00 46.84      6
ATOM   6589  O    SER C 392      49.482  94.831  15.306  1.00 45.92      8
ATOM   6590  N    GLN C 393      48.147  95.990  16.740  1.00 47.13      7
ATOM   6591  CA   GLN C 393      47.832  94.925  17.667  1.00 47.20      6
ATOM   6592  CB   GLN C 393      47.217  95.540  18.898  1.00 30.87      6
ATOM   6593  CG   GLN C 393      47.925  96.720  19.395  1.00 28.44      6
ATOM   6594  CD   GLN C 393      47.360  97.211  20.675  1.00 25.75      6
ATOM   6595  OE1  GLN C 393      46.354  96.725  21.166  1.00 24.51      8
ATOM   6596  NE2  GLN C 393      48.006  98.187  21.235  1.00 23.12      7
ATOM   6597  C    GLN C 393      46.929  93.850  17.118  1.00 47.76      6
ATOM   6598  O    GLN C 393      46.520  93.884  15.954  1.00 47.04      8
ATOM   6599  N    PHE C 394      46.632  92.891  17.987  1.00100.33      7
```

118

ATOM	6600	CA	PHE	C	394	45.819	91.735	17.611	1.00	101.57	6
ATOM	6601	CB	PHE	C	394	46.088	90.558	18.496	1.00	55.89	6
ATOM	6602	CG	PHE	C	394	45.937	89.199	17.814	1.00	56.43	6
ATOM	6603	CD1	PHE	C	394	47.022	88.610	17.163	1.00	56.75	6
ATOM	6604	CD2	PHE	C	394	44.729	88.501	17.847	1.00	56.42	6
ATOM	6605	CE1	PHE	C	394	46.903	87.378	16.571	1.00	55.89	6
ATOM	6606	CE2	PHE	C	394	44.614	87.263	17.251	1.00	56.09	6
ATOM	6607	CZ	PHE	C	394	45.701	86.706	16.613	1.00	56.21	6
ATOM	6608	C	PHE	C	394	44.386	92.136	17.908	1.00	102.12	6
ATOM	6609	O	PHE	C	394	44.148	93.111	18.590	1.00	105.06	8
ATOM	6610	N	LYS	C	395	43.398	91.433	17.396	1.00	43.81	7
ATOM	6611	CA	LYS	C	395	42.047	91.882	17.648	1.00	42.16	6
ATOM	6612	CB	LYS	C	395	41.163	91.329	16.587	1.00	29.19	6
ATOM	6613	CG	LYS	C	395	39.781	91.752	16.820	1.00	28.08	6
ATOM	6614	CD	LYS	C	395	39.421	92.968	15.985	1.00	27.79	6
ATOM	6615	CE	LYS	C	395	37.907	93.165	15.857	1.00	28.90	6
ATOM	6616	NZ	LYS	C	395	37.246	92.603	14.623	1.00	30.18	7
ATOM	6617	C	LYS	C	395	41.661	91.354	18.981	1.00	42.33	6
ATOM	6618	O	LYS	C	395	41.706	90.197	19.193	1.00	44.26	8
ATOM	6619	N	ASP	C	396	41.363	92.120	19.918	1.00	50.17	7
ATOM	6620	CA	ASP	C	396	40.920	91.730	21.255	1.00	49.83	6
ATOM	6621	CB	ASP	C	396	40.968	92.942	22.177	1.00	62.41	6
ATOM	6622	CG	ASP	C	396	40.953	92.600	23.650	1.00	63.51	6
ATOM	6623	OD1	ASP	C	396	39.859	92.509	24.213	1.00	64.56	8
ATOM	6624	OD2	ASP	C	396	42.030	92.530	24.284	1.00	62.94	8
ATOM	6625	C	ASP	C	396	39.518	91.320	20.926	1.00	49.88	6
ATOM	6626	O	ASP	C	396	38.765	92.120	20.429	1.00	50.51	8
ATOM	6627	N	GLU	C	397	39.080	90.123	21.021	1.00	56.43	7
ATOM	6628	CA	GLU	C	397	37.715	89.814	20.676	1.00	55.07	6
ATOM	6629	CB	GLU	C	397	37.666	89.323	19.251	1.00	49.17	6
ATOM	6630	CG	GLU	C	397	37.220	90.347	18.256	1.00	54.30	6
ATOM	6631	CD	GLU	C	397	37.118	89.754	16.863	1.00	58.33	6
ATOM	6632	OE1	GLU	C	397	36.404	90.376	16.030	1.00	60.41	8
ATOM	6633	OE2	GLU	C	397	37.749	88.677	16.650	1.00	60.82	8
ATOM	6634	C	GLU	C	397	37.006	88.814	21.516	1.00	52.66	6
ATOM	6635	O	GLU	C	397	36.171	88.083	20.991	1.00	53.22	8
ATOM	6636	N	THR	C	398	37.320	88.765	22.800	1.00	28.42	7
ATOM	6637	CA	THR	C	398	36.665	87.811	23.652	1.00	25.27	6
ATOM	6638	CB	THR	C	398	37.247	87.863	25.038	1.00	19.82	6
ATOM	6639	OG1	THR	C	398	38.607	88.268	24.933	1.00	19.57	8
ATOM	6640	CG2	THR	C	398	37.222	86.489	25.695	1.00	18.63	6
ATOM	6641	C	THR	C	398	35.177	88.132	23.682	1.00	25.57	6
ATOM	6642	O	THR	C	398	34.360	87.249	23.430	1.00	26.94	8
ATOM	6643	N	ASN	C	399	34.811	89.379	23.988	1.00	37.48	7
ATOM	6644	CA	ASN	C	399	33.392	89.759	23.996	1.00	35.58	6
ATOM	6645	CB	ASN	C	399	32.902	90.052	25.448	1.00	21.35	6
ATOM	6646	CG	ASN	C	399	32.983	91.536	25.855	1.00	19.01	6
ATOM	6647	OD1	ASN	C	399	32.951	91.854	27.043	1.00	17.99	8
ATOM	6648	ND2	ASN	C	399	33.059	92.437	24.884	1.00	17.39	7
ATOM	6649	C	ASN	C	399	33.212	90.945	23.040	1.00	35.20	6
ATOM	6650	O	ASN	C	399	34.146	91.715	22.825	1.00	35.32	8
ATOM	6651	N	PRO	C	400	32.015	91.103	22.442	1.00	48.40	7
ATOM	6652	CD	PRO	C	400	30.737	90.377	22.567	1.00	16.55	6
ATOM	6653	CA	PRO	C	400	31.877	92.238	21.531	1.00	47.22	6
ATOM	6654	CB	PRO	C	400	30.374	92.226	21.168	1.00	14.25	6
ATOM	6655	CG	PRO	C	400	29.724	91.456	22.247	1.00	13.87	6

119

ATOM	6656	C	PRO	C	400	32.393	93.590	22.040	1.00	46.64	6
ATOM	6657	O	PRO	C	400	33.057	94.295	21.290	1.00	46.70	8
ATOM	6658	N	LEU	C	401	32.126	93.962	23.290	1.00	28.24	7
ATOM	6659	CA	LEU	C	401	32.618	95.259	23.764	1.00	27.85	6
ATOM	6660	CB	LEU	C	401	32.372	95.455	25.262	1.00	13.87	6
ATOM	6661	CG	LEU	C	401	33.105	96.654	25.889	1.00	13.87	6
ATOM	6662	CD1	LEU	C	401	32.619	97.953	25.329	1.00	13.87	6
ATOM	6663	CD2	LEU	C	401	32.886	96.633	27.359	1.00	13.87	6
ATOM	6664	C	LEU	C	401	34.109	95.417	23.486	1.00	28.34	6
ATOM	6665	O	LEU	C	401	34.541	96.405	22.876	1.00	28.00	8
ATOM	6666	N	SER	C	402	34.879	94.434	23.946	1.00	13.95	7
ATOM	6667	CA	SER	C	402	36.327	94.383	23.779	1.00	15.21	6
ATOM	6668	CB	SER	C	402	36.784	92.924	23.812	1.00	38.02	6
ATOM	6669	OG	SER	C	402	36.100	92.173	24.805	1.00	39.19	8
ATOM	6670	C	SER	C	402	36.778	95.020	22.465	1.00	16.19	6
ATOM	6671	O	SER	C	402	37.133	96.182	22.439	1.00	16.43	8
ATOM	6672	N	SER	C	403	36.760	94.251	21.380	1.00	15.62	7
ATOM	6673	CA	SER	C	403	37.176	94.747	20.079	1.00	17.34	6
ATOM	6674	CB	SER	C	403	36.604	93.877	18.963	1.00	62.46	6
ATOM	6675	OG	SER	C	403	35.382	94.419	18.498	1.00	67.82	8
ATOM	6676	C	SER	C	403	36.755	96.199	19.860	1.00	17.00	6
ATOM	6677	O	SER	C	403	37.539	97.002	19.346	1.00	15.83	8
ATOM	6678	N	LEU	C	404	35.521	96.540	20.234	1.00	27.97	7
ATOM	6679	CA	LEU	C	404	35.026	97.916	20.092	1.00	28.89	6
ATOM	6680	CB	LEU	C	404	33.603	98.034	20.672	1.00	19.74	6
ATOM	6681	CG	LEU	C	404	32.946	99.424	20.794	1.00	19.85	6
ATOM	6682	CD1	LEU	C	404	33.091	100.242	19.523	1.00	19.19	6
ATOM	6683	CD2	LEU	C	404	31.480	99.249	21.115	1.00	19.89	6
ATOM	6684	C	LEU	C	404	36.000	98.822	20.852	1.00	29.54	6
ATOM	6685	O	LEU	C	404	36.624	99.719	20.285	1.00	28.10	8
ATOM	6686	N	ARG	C	405	36.136	98.552	22.141	1.00	35.76	7
ATOM	6687	CA	ARG	C	405	37.039	99.292	23.000	1.00	38.91	6
ATOM	6688	CB	ARG	C	405	37.145	98.572	24.342	1.00	66.63	6
ATOM	6689	CG	ARG	C	405	38.233	99.090	25.252	1.00	71.12	6
ATOM	6690	CD	ARG	C	405	38.340	98.252	26.518	1.00	73.97	6
ATOM	6691	NE	ARG	C	405	39.437	98.713	27.360	1.00	76.85	7
ATOM	6692	CZ	ARG	C	405	39.900	98.054	28.416	1.00	78.23	6
ATOM	6693	NH1	ARG	C	405	39.362	96.894	28.771	1.00	78.51	7
ATOM	6694	NH2	ARG	C	405	40.913	98.555	29.111	1.00	77.42	7
ATOM	6695	C	ARG	C	405	38.427	99.411	22.381	1.00	40.01	6
ATOM	6696	O	ARG	C	405	39.073	100.452	22.447	1.00	40.60	8
ATOM	6697	N	HIS	C	406	38.886	98.338	21.761	1.00	71.68	7
ATOM	6698	CA	HIS	C	406	40.214	98.343	21.181	1.00	71.27	6
ATOM	6699	CB	HIS	C	406	40.476	97.032	20.471	1.00	45.63	6
ATOM	6700	CG	HIS	C	406	41.925	96.763	20.246	1.00	45.60	6
ATOM	6701	CD2	HIS	C	406	42.673	95.666	20.502	1.00	45.37	6
ATOM	6702	ND1	HIS	C	406	42.777	97.691	19.694	1.00	45.64	7
ATOM	6703	CE1	HIS	C	406	43.990	97.177	19.620	1.00	46.13	6
ATOM	6704	NE2	HIS	C	406	43.954	95.949	20.104	1.00	45.14	7
ATOM	6705	C	HIS	C	406	40.507	99.480	20.220	1.00	70.89	6
ATOM	6706	O	HIS	C	406	41.665	99.834	20.013	1.00	71.72	8
ATOM	6707	N	LYS	C	407	39.474	100.052	19.621	1.00	32.66	7
ATOM	6708	CA	LYS	C	407	39.699	101.145	18.682	1.00	32.24	6
ATOM	6709	CB	LYS	C	407	38.658	101.092	17.572	1.00	49.47	6
ATOM	6710	CG	LYS	C	407	37.803	99.846	17.643	1.00	50.89	6
ATOM	6711	CD	LYS	C	407	37.825	99.073	16.360	1.00	51.05	6

```
ATOM   6712  CE   LYS C 407      36.856  97.930  16.448  1.00  50.82       6
ATOM   6713  NZ   LYS C 407      36.828  97.249  15.154  1.00  54.18       7
ATOM   6714  C    LYS C 407      39.613 102.453  19.435  1.00  31.38       6
ATOM   6715  O    LYS C 407      40.315 103.415  19.135  1.00  30.71       8
ATOM   6716  N    ARG C 408      38.742 102.463  20.430  1.00  37.35       7
ATOM   6717  CA   ARG C 408      38.541 103.623  21.267  1.00  37.07       6
ATOM   6718  CB   ARG C 408      37.306 103.398  22.149  1.00  46.72       6
ATOM   6719  CG   ARG C 408      36.014 103.190  21.383  1.00  46.51       6
ATOM   6720  CD   ARG C 408      35.442 104.515  20.974  1.00  48.61       6
ATOM   6721  NE   ARG C 408      35.078 105.309  22.145  1.00  50.98       7
ATOM   6722  CZ   ARG C 408      34.973 106.638  22.156  1.00  52.08       6
ATOM   6723  NH1  ARG C 408      35.204 107.354  21.058  1.00  52.11       7
ATOM   6724  NH2  ARG C 408      34.643 107.259  23.273  1.00  51.65       7
ATOM   6725  C    ARG C 408      39.796 103.807  22.132  1.00  36.51       6
ATOM   6726  O    ARG C 408      39.803 104.612  23.066  1.00  36.16       8
ATOM   6727  N    ARG C 409      40.862 103.070  21.813  1.00  35.92       7
ATOM   6728  CA   ARG C 409      42.100 103.162  22.593  1.00  35.68       6
ATOM   6729  CB   ARG C 409      42.737 101.794  22.782  1.00  37.02       6
ATOM   6730  CG   ARG C 409      44.122 101.843  23.419  1.00  35.78       6
ATOM   6731  CD   ARG C 409      44.655 100.438  23.564  1.00  36.76       6
ATOM   6732  NE   ARG C 409      43.710  99.638  24.333  1.00  38.64       7
ATOM   6733  CZ   ARG C 409      43.783  98.323  24.497  1.00  39.22       6
ATOM   6734  NH1  ARG C 409      44.767  97.629  23.948  1.00  39.62       7
ATOM   6735  NH2  ARG C 409      42.857  97.701  25.208  1.00  41.22       7
ATOM   6736  C    ARG C 409      43.178 104.088  22.086  1.00  35.88       6
ATOM   6737  O    ARG C 409      43.510 104.107  20.896  1.00  35.91       8
ATOM   6738  N    ILE C 410      43.729 104.842  23.030  1.00  35.02       7
ATOM   6739  CA   ILE C 410      44.799 105.785  22.765  1.00  36.04       6
ATOM   6740  CB   ILE C 410      44.591 107.153  23.528  1.00  32.78       6
ATOM   6741  CG2  ILE C 410      45.939 107.795  23.826  1.00  34.25       6
ATOM   6742  CG1  ILE C 410      43.759 108.137  22.696  1.00  31.74       6
ATOM   6743  CD1  ILE C 410      42.278 107.862  22.649  1.00  30.33       6
ATOM   6744  C    ILE C 410      46.034 105.089  23.318  1.00  37.94       6
ATOM   6745  O    ILE C 410      46.056 104.717  24.493  1.00  38.10       8
ATOM   6746  N    SER C 411      47.038 104.885  22.471  1.00  24.18       7
ATOM   6747  CA   SER C 411      48.268 104.250  22.909  1.00  27.82       6
ATOM   6748  CB   SER C 411      48.783 103.266  21.861  1.00157.88       6
ATOM   6749  OG   SER C 411      48.934 101.957  22.435  1.00162.92       8
ATOM   6750  C    SER C 411      49.328 105.306  23.163  1.00  28.22       6
ATOM   6751  O    SER C 411      49.157 106.472  22.810  1.00  27.60       8
ATOM   6752  N    ALA C 412      50.424 104.904  23.783  1.00  55.73       7
ATOM   6753  CA   ALA C 412      51.484 105.844  24.063  1.00  58.06       6
ATOM   6754  CB   ALA C 412      51.304 106.428  25.444  1.00  70.88       6
ATOM   6755  C    ALA C 412      52.792 105.094  23.969  1.00  59.54       6
ATOM   6756  O    ALA C 412      53.835 105.674  23.677  1.00  61.33       8
ATOM   6757  N    LEU C 413      52.763 103.845  23.911  1.00  56.28       7
ATOM   6758  CA   LEU C 413      53.917 102.970  24.143  1.00  56.99       6
ATOM   6759  CB   LEU C 413      53.486 101.686  24.859  1.00  33.97       6
ATOM   6760  CG   LEU C 413      53.462 101.732  26.389  1.00  33.75       6
ATOM   6761  CD1  LEU C 413      53.010 100.396  26.960  1.00  34.03       6
ATOM   6762  CD2  LEU C 413      54.829 102.111  26.937  1.00  33.01       6
ATOM   6763  C    LEU C 413      54.633 102.619  22.836  1.00  58.26       6
ATOM   6764  O    LEU C 413      55.800 102.271  22.908  1.00  57.86       8
ATOM   6765  N    GLY C 414      54.461 102.472  21.897  1.00  55.40       7
ATOM   6766  CA   GLY C 414      54.429 102.388  20.433  1.00  58.04       6
ATOM   6767  C    GLY C 414      55.480 103.322  19.847  1.00  60.19       6
```

121

```
ATOM   6768  O    GLY C 414    55.907 104.249 20.529  1.00 59.87    8
ATOM   6769  N    PRO C 415    55.778 103.592 18.679  1.00 67.48    7
ATOM   6770  CD   PRO C 415    54.565 103.100 17.851  1.00 42.19    6
ATOM   6771  CA   PRO C 415    56.957 103.776 17.822  1.00 69.41    6
ATOM   6772  CB   PRO C 415    56.489 103.238 16.456  1.00 43.88    6
ATOM   6773  CG   PRO C 415    55.322 102.382 16.781  1.00 42.95    6
ATOM   6774  C    PRO C 415    57.383 105.244 17.719  1.00 71.76    6
ATOM   6775  O    PRO C 415    58.644 105.425 17.279  1.00 72.81    8
ATOM   6776  N    GLY C 416    57.069 106.150 17.236  1.00 73.40    7
ATOM   6777  CA   GLY C 416    56.907 107.595 17.251  1.00 76.08    6
ATOM   6778  C    GLY C 416    58.056 108.227 18.015  1.00 78.75    6
ATOM   6779  O    GLY C 416    58.600 107.574 18.941  1.00 79.56    8
ATOM   6780  N    GLY C 417    58.491 109.387 17.553  1.00208.87    7
ATOM   6781  CA   GLY C 417    59.641 110.073 18.153  1.00208.87    6
ATOM   6782  C    GLY C 417    59.492 110.309 19.660  1.00208.87    6
ATOM   6783  O    GLY C 417    58.525 110.979 20.105  1.00208.87    8
ATOM   6784  N    LEU C 418    60.613 109.829 20.407  1.00178.48    7
ATOM   6785  CA   LEU C 418    60.715 110.086 21.845  1.00178.98    6
ATOM   6786  CB   LEU C 418    60.914 111.587 22.111  1.00115.94    6
ATOM   6787  CG   LEU C 418    61.291 112.004 23.540  1.00116.07    6
ATOM   6788  CD1  LEU C 418    62.642 111.406 23.903  1.00115.88    6
ATOM   6789  CD2  LEU C 418    61.336 113.523 23.650  1.00115.50    6
ATOM   6790  C    LEU C 418    59.450 109.578 22.554  1.00179.32    6
ATOM   6791  O    LEU C 418    59.110 110.018 23.654  1.00179.90    8
ATOM   6792  N    THR C 419    58.770 108.637 21.901  1.00 96.26    7
ATOM   6793  CA   THR C 419    57.544 108.025 22.404  1.00 95.44    6
ATOM   6794  CB   THR C 419    56.928 107.117 21.340  1.00 56.35    6
ATOM   6795  OG1  THR C 419    56.537 107.908 20.215  1.00 56.39    8
ATOM   6796  CG2  THR C 419    55.727 106.383 21.889  1.00 56.02    6
ATOM   6797  C    THR C 419    57.804 107.176 23.635  1.00 96.03    6
ATOM   6798  O    THR C 419    58.207 106.020 23.508  1.00 96.11    8
ATOM   6799  N    ARG C 420    57.558 107.745 24.814  1.00 77.71    7
ATOM   6800  CA   ARG C 420    57.770 107.055 26.086  1.00 77.96    6
ATOM   6801  CB   ARG C 420    56.605 107.326 27.046  1.00104.02    6
ATOM   6802  CG   ARG C 420    55.915 108.674 26.853  1.00105.07    6
ATOM   6803  CD   ARG C 420    56.881 109.843 27.005  1.00104.95    6
ATOM   6804  NE   ARG C 420    56.216 111.139 26.869  1.00105.26    7
ATOM   6805  CZ   ARG C 420    56.834 112.314 26.984  1.00106.46    6
ATOM   6806  NH1  ARG C 420    58.138 112.366 27.234  1.00106.73    7
ATOM   6807  NH2  ARG C 420    56.146 113.442 26.857  1.00106.90    7
ATOM   6808  C    ARG C 420    57.879 105.554 25.854  1.00 78.23    6
ATOM   6809  O    ARG C 420    56.919 104.928 25.390  1.00 77.77    8
ATOM   6810  N    GLU C 421    59.052 104.981 26.127  1.00 66.20    7
ATOM   6811  CA   GLU C 421    59.214 103.543 25.959  1.00 67.97    6
ATOM   6812  CB   GLU C 421    60.691 103.151 25.841  1.00129.07    6
ATOM   6813  CG   GLU C 421    61.453 103.081 27.157  1.00131.33    6
ATOM   6814  CD   GLU C 421    62.674 102.170 27.080  1.00133.12    6
ATOM   6815  OE1  GLU C 421    63.577 102.442 26.260  1.00134.20    8
ATOM   6816  OE2  GLU C 421    62.731 101.177 27.842  1.00134.22    8
ATOM   6817  C    GLU C 421    58.609 102.964 27.233  1.00 68.71    6
ATOM   6818  O    GLU C 421    58.182 103.724 28.104  1.00 68.46    8
ATOM   6819  N    ARG C 422    58.562 101.641 27.353  1.00 76.71    7
ATOM   6820  CA   ARG C 422    57.993 101.021 28.546  1.00 78.22    6
ATOM   6821  CB   ARG C 422    58.513  99.586 28.707  1.00169.99    6
ATOM   6822  CG   ARG C 422    60.001  99.471 29.013  1.00172.23    6
ATOM   6823  CD   ARG C 422    60.409  98.015 29.221  1.00174.06    6
```

122

```
ATOM    6824  NE   ARG C 422     59.588  97.355  30.236  1.00175.15     7
ATOM    6825  CZ   ARG C 422     59.774  96.108  30.662  1.00175.32     6
ATOM    6826  NH1  ARG C 422     60.759  95.373  30.166  1.00175.51     7
ATOM    6827  NH2  ARG C 422     58.973  95.594  31.586  1.00175.57     7
ATOM    6828  C    ARG C 422     58.365 101.853  29.766  1.00 78.41     6
ATOM    6829  O    ARG C 422     57.577 101.999  30.691  1.00 77.73     8
ATOM    6830  N    ALA C 423     59.572 102.411  29.742  1.00 83.10     7
ATOM    6831  CA   ALA C 423     60.073 103.253  30.823  1.00 83.57     6
ATOM    6832  CB   ALA C 423     61.008 102.442  31.717  1.00150.52     6
ATOM    6833  C    ALA C 423     60.799 104.507  30.293  1.00 83.97     6
ATOM    6834  O    ALA C 423     61.761 104.982  30.903  1.00 83.60     8
ATOM    6835  N    GLY C 424     60.318 105.042  29.170  1.00195.59     7
ATOM    6836  CA   GLY C 424     60.923 106.225  28.569  1.00196.13     6
ATOM    6837  C    GLY C 424     61.202 107.343  29.559  1.00196.47     6
ATOM    6838  O    GLY C 424     60.606 107.373  30.636  1.00196.41     8
ATOM    6839  N    PHE C 425     62.092 108.271  29.200  1.00134.14     7
ATOM    6840  CA   PHE C 425     62.436 109.370  30.102  1.00133.29     6
ATOM    6841  CB   PHE C 425     63.622 110.182  29.559  1.00106.82     6
ATOM    6842  CG   PHE C 425     64.887 109.996  30.360  1.00107.16     6
ATOM    6843  CD1  PHE C 425     65.712 108.894  30.144  1.00106.92     6
ATOM    6844  CD2  PHE C 425     65.210 110.877  31.393  1.00107.62     6
ATOM    6845  CE1  PHE C 425     66.838 108.665  30.950  1.00107.04     6
ATOM    6846  CE2  PHE C 425     66.335 110.656  32.205  1.00108.30     6
ATOM    6847  CZ   PHE C 425     67.147 109.546  31.981  1.00107.74     6
ATOM    6848  C    PHE C 425     61.284 110.307  30.458  1.00132.93     6
ATOM    6849  O    PHE C 425     61.031 111.294  29.764  1.00133.62     8
ATOM    6850  N    ASP C 426     60.618 109.960  31.564  1.00158.69     7
ATOM    6851  CA   ASP C 426     59.477 110.654  32.177  1.00157.54     6
ATOM    6852  CB   ASP C 426     59.177 112.010  31.500  1.00 82.48     6
ATOM    6853  CG   ASP C 426     58.398 111.878  30.205  1.00 81.86     6
ATOM    6854  OD1  ASP C 426     58.453 110.801  29.573  1.00 81.36     8
ATOM    6855  OD2  ASP C 426     57.740 112.872  29.817  1.00 80.99     8
ATOM    6856  C    ASP C 426     58.237 109.757  32.193  1.00156.95     6
ATOM    6857  O    ASP C 426     57.144 110.175  31.827  1.00157.14     8
ATOM    6858  N    VAL C 427     58.433 108.515  32.631  1.00169.51     7
ATOM    6859  CA   VAL C 427     57.359 107.528  32.730  1.00168.75     6
ATOM    6860  CB   VAL C 427     57.885 106.173  33.236  1.00 80.98     6
ATOM    6861  CG1  VAL C 427     56.744 105.174  33.375  1.00 80.25     6
ATOM    6862  CG2  VAL C 427     58.921 105.655  32.294  1.00 81.07     6
ATOM    6863  C    VAL C 427     56.307 108.007  33.714  1.00168.67     6
ATOM    6864  O    VAL C 427     55.355 108.690  33.335  1.00169.83     8
ATOM    6865  N    ARG C 428     56.479 107.643  34.982  1.00 89.40     7
ATOM    6866  CA   ARG C 428     55.540 108.053  36.013  1.00 88.38     6
ATOM    6867  CB   ARG C 428     56.003 107.524  37.372  1.00 92.50     6
ATOM    6868  CG   ARG C 428     56.396 106.053  37.278  1.00 93.10     6
ATOM    6869  CD   ARG C 428     56.368 105.316  38.606  1.00 93.12     6
ATOM    6870  NE   ARG C 428     56.960 103.984  38.474  1.00 93.43     7
ATOM    6871  CZ   ARG C 428     56.875 103.024  39.390  1.00 93.85     6
ATOM    6872  NH1  ARG C 428     56.214 103.235  40.518  1.00 94.45     7
ATOM    6873  NH2  ARG C 428     57.460 101.855  39.184  1.00 94.29     7
ATOM    6874  C    ARG C 428     55.473 109.575  35.974  1.00 87.64     6
ATOM    6875  O    ARG C 428     56.251 110.206  35.256  1.00 87.70     8
ATOM    6876  N    ASP C 429     54.552 110.161  36.731  1.00110.57     7
ATOM    6877  CA   ASP C 429     54.346 111.612  36.735  1.00110.32     6
ATOM    6878  CB   ASP C 429     55.643 112.413  36.476  1.00112.49     6
ATOM    6879  CG   ASP C 429     56.819 111.957  37.332  1.00113.10     6
```

123

```
ATOM    6880    OD1  ASP  C  429        56.609 111.595  38.508  1.00113.98    8
ATOM    6881    OD2  ASP  C  429        57.963 111.983  36.823  1.00112.70    8
ATOM    6882    C    ASP  C  429        53.393 111.861  35.566  1.00109.53    6
ATOM    6883    O    ASP  C  429        52.361 112.516  35.712  1.00109.81    8
ATOM    6884    N    VAL  C  430        53.762 111.329  34.402  1.00111.98    7
ATOM    6885    CA   VAL  C  430        52.964 111.459  33.187  1.00110.45    6
ATOM    6886    CB   VAL  C  430        53.655 110.792  31.979  1.00 68.68    6
ATOM    6887    CG1  VAL  C  430        52.653 110.543  30.862  1.00 67.72    6
ATOM    6888    CG2  VAL  C  430        54.761 111.689  31.478  1.00 69.29    6
ATOM    6889    C    VAL  C  430        51.627 110.789  33.389  1.00109.91    6
ATOM    6890    O    VAL  C  430        50.587 111.449  33.363  1.00110.52    8
ATOM    6891    N    HIS  C  431        51.671 109.472  33.579  1.00 80.56    7
ATOM    6892    CA   HIS  C  431        50.471 108.672  33.797  1.00 78.57    6
ATOM    6893    CB   HIS  C  431        50.774 107.547  34.797  1.00 58.67    6
ATOM    6894    CG   HIS  C  431        51.914 106.654  34.394  1.00 55.89    6
ATOM    6895    CD2  HIS  C  431        52.648 105.771  35.113  1.00 55.43    6
ATOM    6896    ND1  HIS  C  431        52.351 106.538  33.092  1.00 54.61    7
ATOM    6897    CE1  HIS  C  431        53.300 105.619  33.027  1.00 53.93    6
ATOM    6898    NE2  HIS  C  431        53.499 105.138  34.239  1.00 53.95    7
ATOM    6899    C    HIS  C  431        49.320 109.545  34.328  1.00 78.25    6
ATOM    6900    O    HIS  C  431        48.240 109.602  33.731  1.00 78.17    8
ATOM    6901    N    ARG  C  432        49.589 110.232  35.441  1.00 46.08    7
ATOM    6902    CA   ARG  C  432        48.640 111.120  36.121  1.00 46.27    6
ATOM    6903    CB   ARG  C  432        49.373 112.334  36.700  1.00180.77    6
ATOM    6904    CG   ARG  C  432        50.103 112.065  38.008  1.00183.68    6
ATOM    6905    CD   ARG  C  432        50.796 113.321  38.522  1.00186.25    6
ATOM    6906    NE   ARG  C  432        51.412 113.112  39.830  1.00189.10    7
ATOM    6907    CZ   ARG  C  432        52.165 114.013  40.453  1.00191.25    6
ATOM    6908    NH1  ARG  C  432        52.398 115.190  39.883  1.00191.83    7
ATOM    6909    NH2  ARG  C  432        52.683 113.745  41.646  1.00192.15    7
ATOM    6910    C    ARG  C  432        47.473 111.614  35.294  1.00 45.55    6
ATOM    6911    O    ARG  C  432        47.605 111.897  34.105  1.00 45.00    8
ATOM    6912    N    THR  C  433        46.324 111.707  35.951  1.00 44.22    7
ATOM    6913    CA   THR  C  433        45.118 112.186  35.312  1.00 44.25    6
ATOM    6914    CB   THR  C  433        43.924 112.264  36.301  1.00 50.03    6
ATOM    6915    OG1  THR  C  433        43.121 111.092  36.165  1.00 49.50    8
ATOM    6916    CG2  THR  C  433        43.054 113.474  36.021  1.00 49.59    6
ATOM    6917    C    THR  C  433        45.404 113.574  34.776  1.00 45.40    6
ATOM    6918    O    THR  C  433        45.919 114.447  35.486  1.00 45.43    8
ATOM    6919    N    HIS  C  434        45.075 113.756  33.504  1.00156.27    7
ATOM    6920    CA   HIS  C  434        45.254 115.025  32.826  1.00157.07    6
ATOM    6921    CB   HIS  C  434        45.573 114.800  31.341  1.00144.78    6
ATOM    6922    CG   HIS  C  434        44.764 113.716  30.691  0.00144.14    6
ATOM    6923    CD2  HIS  C  434        43.760 112.938  31.158  0.00143.69    6
ATOM    6924    ND1  HIS  C  434        44.982 113.319  29.389  0.00143.69    7
ATOM    6925    CE1  HIS  C  434        44.147 112.342  29.084  0.00143.54    6
ATOM    6926    NE2  HIS  C  434        43.394 112.091  30.139  0.00143.54    7
ATOM    6927    C    HIS  C  434        43.980 115.830  32.970  1.00157.44    6
ATOM    6928    O    HIS  C  434        42.935 115.443  32.444  1.00158.31    8
ATOM    6929    N    TYR  C  435        44.071 116.941  33.697  1.00 67.96    7
ATOM    6930    CA   TYR  C  435        42.922 117.811  33.915  1.00 67.85    6
ATOM    6931    CB   TYR  C  435        43.379 119.169  34.456  1.00 79.02    6
ATOM    6932    CG   TYR  C  435        44.815 119.516  34.117  0.00 78.21    6
ATOM    6933    CD1  TYR  C  435        45.238 119.612  32.792  0.00 77.88    6
ATOM    6934    CE1  TYR  C  435        46.565 119.907  32.477  0.00 77.84    6
ATOM    6935    CD2  TYR  C  435        45.755 119.726  35.125  0.00 77.88    6
```

124

```
ATOM   6936  CE2  TYR C 435    47.084 120.022  34.823  0.00 77.84    6
ATOM   6937  CZ   TYR C 435    47.482 120.109  33.498  0.00 77.79    6
ATOM   6938  OH   TYR C 435    48.796 120.390  33.199  0.00 78.17    8
ATOM   6939  C    TYR C 435    42.102 117.978  32.636  1.00 68.74    6
ATOM   6940  O    TYR C 435    40.948 118.405  32.685  1.00 69.03    8
ATOM   6941  N    GLY C 436    42.712 117.650  31.495  1.00 67.62    7
ATOM   6942  CA   GLY C 436    42.007 117.692  30.226  1.00 68.62    6
ATOM   6943  C    GLY C 436    41.179 116.407  30.171  1.00 69.36    6
ATOM   6944  O    GLY C 436    41.598 115.412  29.585  1.00 72.11    8
ATOM   6945  N    ARG C 437    40.007 116.424  30.803  1.00 55.47    7
ATOM   6946  CA   ARG C 437    39.119 115.263  30.855  1.00 52.65    6
ATOM   6947  CB   ARG C 437    38.202 115.375  32.070  1.00 51.14    6
ATOM   6948  CG   ARG C 437    37.287 116.577  32.054  1.00 50.84    6
ATOM   6949  CD   ARG C 437    36.395 116.602  33.275  1.00 51.08    6
ATOM   6950  NE   ARG C 437    35.064 117.071  32.919  1.00 52.43    7
ATOM   6951  CZ   ARG C 437    34.135 117.411  33.800  1.00 53.50    6
ATOM   6952  NH1  ARG C 437    34.389 117.337  35.096  1.00 53.97    7
ATOM   6953  NH2  ARG C 437    32.953 117.832  33.385  1.00 54.15    7
ATOM   6954  C    ARG C 437    38.269 115.004  29.602  1.00 52.18    6
ATOM   6955  O    ARG C 437    37.055 115.243  29.574  1.00 52.84    8
ATOM   6956  N    ILE C 438    38.928 114.486  28.574  1.00 74.85    7
ATOM   6957  CA   ILE C 438    38.304 114.161  27.298  1.00 73.00    6
ATOM   6958  CB   ILE C 438    38.672 115.195  26.233  1.00 47.80    6
ATOM   6959  CG2  ILE C 438    37.485 115.435  25.387  1.00 49.03    6
ATOM   6960  CG1  ILE C 438    39.127 116.519  26.868  1.00 47.22    6
ATOM   6961  CD1  ILE C 438    39.368 117.667  25.873  1.00 44.57    6
ATOM   6962  C    ILE C 438    38.913 112.820  26.900  1.00 72.42    6
ATOM   6963  O    ILE C 438    39.014 112.458  25.730  1.00 73.30    8
ATOM   6964  N    CYS C 439    39.323 112.102  27.931  1.00 77.21    7
ATOM   6965  CA   CYS C 439    39.978 110.817  27.830  1.00 75.33    6
ATOM   6966  CB   CYS C 439    41.477 111.086  27.736  1.00 47.34    6
ATOM   6967  SG   CYS C 439    42.633 109.723  27.743  1.00 37.84   16
ATOM   6968  C    CYS C 439    39.591 110.191  29.165  1.00 76.68    6
ATOM   6969  O    CYS C 439    39.559 110.873  30.183  1.00 77.75    8
ATOM   6970  N    PRO C 440    39.304 108.885  29.180  1.00 34.22    7
ATOM   6971  CD   PRO C 440    39.890 107.984  28.176  1.00105.10    6
ATOM   6972  CA   PRO C 440    38.896 108.117  30.369  1.00 34.23    6
ATOM   6973  CB   PRO C 440    39.057 106.678  29.912  1.00105.80    6
ATOM   6974  CG   PRO C 440    40.237 106.770  29.007  1.00107.40    6
ATOM   6975  C    PRO C 440    39.708 108.401  31.610  1.00 34.11    6
ATOM   6976  O    PRO C 440    40.929 108.486  31.545  1.00 33.92    8
ATOM   6977  N    VAL C 441    39.034 108.522  32.744  1.00 55.14    7
ATOM   6978  CA   VAL C 441    39.731 108.816  33.981  1.00 57.66    6
ATOM   6979  CB   VAL C 441    38.906 109.788  34.840  1.00 86.60    6
ATOM   6980  CG1  VAL C 441    38.932 111.162  34.223  1.00 86.91    6
ATOM   6981  CG2  VAL C 441    37.473 109.310  34.929  1.00 87.90    6
ATOM   6982  C    VAL C 441    40.103 107.588  34.816  1.00 59.20    6
ATOM   6983  O    VAL C 441    40.921 107.690  35.736  1.00 59.36    8
ATOM   6984  N    GLU C 442    39.525 106.430  34.491  1.00107.21    7
ATOM   6985  CA   GLU C 442    39.809 105.199  35.235  1.00108.59    6
ATOM   6986  CB   GLU C 442    38.748 104.996  36.311  1.00 86.62    6
ATOM   6987  CG   GLU C 442    37.343 104.879  35.746  1.00 87.79    6
ATOM   6988  CD   GLU C 442    36.302 104.513  36.795  1.00 89.95    6
ATOM   6989  OE1  GLU C 442    36.533 103.548  37.551  1.00 92.77    8
ATOM   6990  OE2  GLU C 442    35.245 105.178  36.861  1.00 89.95    8
ATOM   6991  C    GLU C 442    39.860 103.948  34.353  1.00110.16    6
```

125

```
ATOM   6992   O    GLU C 442      39.150 102.981   34.617   1.00111.15      8
ATOM   6993   N    THR C 443      40.713 103.957   33.328   1.00128.30      7
ATOM   6994   CA   THR C 443      40.832 102.830   32.394   1.00129.11      6
ATOM   6995   CB   THR C 443      40.634 103.300   30.929   1.00139.96      6
ATOM   6996   OG1  THR C 443      39.325 103.854   30.775   1.00139.87      8
ATOM   6997   CG2  THR C 443      40.777 102.138   29.969   1.00141.01      6
ATOM   6998   C    THR C 443      42.125 101.999   32.422   1.00129.49      6
ATOM   6999   O    THR C 443      42.080 100.783   32.247   1.00130.53      8
ATOM   7000   N    PRO C 444      43.288 102.639   32.637   1.00 77.51      7
ATOM   7001   CD   PRO C 444      43.423 104.024   33.120   1.00 66.72      6
ATOM   7002   CA   PRO C 444      44.590 101.959   32.675   1.00 78.03      6
ATOM   7003   CB   PRO C 444      45.446 102.908   33.507   1.00 67.09      6
ATOM   7004   CG   PRO C 444      44.922 104.228   33.138   1.00 66.86      6
ATOM   7005   C    PRO C 444      44.581 100.560   33.270   1.00 78.64      6
ATOM   7006   O    PRO C 444      43.617 100.162   33.918   1.00 80.74      8
ATOM   7007   N    GLU C 445      45.657  99.812   33.053   1.00 35.81      7
ATOM   7008   CA   GLU C 445      45.733  98.482   33.634   1.00 35.36      6
ATOM   7009   CB   GLU C 445      45.944  97.440   32.537   1.00 77.62      6
ATOM   7010   CG   GLU C 445      44.692  96.612   32.246   1.00 79.75      6
ATOM   7011   CD   GLU C 445      44.799  95.175   32.736   1.00 80.05      6
ATOM   7012   OE1  GLU C 445      45.667  94.434   32.235   1.00 80.64      8
ATOM   7013   OE2  GLU C 445      44.015  94.784   33.619   1.00 81.30      8
ATOM   7014   C    GLU C 445      46.796  98.339   34.751   1.00 34.05      6
ATOM   7015   O    GLU C 445      46.697  98.974   35.797   1.00 34.45      8
ATOM   7016   N    GLY C 446      47.799  97.493   34.554   1.00107.56      7
ATOM   7017   CA   GLY C 446      48.804  97.328   35.593   1.00107.12      6
ATOM   7018   C    GLY C 446      50.242  97.318   35.103   1.00106.84      6
ATOM   7019   O    GLY C 446      50.555  96.730   34.062   1.00108.10      8
ATOM   7020   N    ALA C 447      51.122  97.972   35.857   1.00 30.72      7
ATOM   7021   CA   ALA C 447      52.540  98.037   35.513   1.00 28.70      6
ATOM   7022   CB   ALA C 447      53.145  96.629   35.534   1.00121.82      6
ATOM   7023   C    ALA C 447      52.753  98.689   34.145   1.00 27.10      6
ATOM   7024   O    ALA C 447      53.863  98.708   33.607   1.00 26.16      8
ATOM   7025   N    ASN C 448      51.670  99.231   33.605   1.00 30.81      7
ATOM   7026   CA   ASN C 448      51.650  99.891   32.305   1.00 29.38      6
ATOM   7027   CB   ASN C 448      51.067  98.926   31.261   1.00 61.60      6
ATOM   7028   CG   ASN C 448      51.307  99.381   29.845   1.00 64.54      6
ATOM   7029   OD1  ASN C 448      51.317 100.567   29.561   1.00 68.29      8
ATOM   7030   ND2  ASN C 448      51.487  98.435   28.944   1.00 65.27      7
ATOM   7031   C    ASN C 448      50.719 101.102   32.466   1.00 27.57      6
ATOM   7032   O    ASN C 448      50.221 101.644   31.487   1.00 26.46      8
ATOM   7033   N    ILE C 449      50.486 101.505   33.716   1.00 71.41      7
ATOM   7034   CA   ILE C 449      49.587 102.615   34.059   1.00 71.54      6
ATOM   7035   CB   ILE C 449      49.902 103.160   35.467   1.00138.02      6
ATOM   7036   CG2  ILE C 449      48.723 103.956   35.986   1.00138.57      6
ATOM   7037   CG1  ILE C 449      50.209 102.004   36.422   1.00138.34      6
ATOM   7038   CD1  ILE C 449      49.134 100.939   36.475   1.00139.38      6
ATOM   7039   C    ILE C 449      49.627 103.792   33.087   1.00 70.75      6
ATOM   7040   O    ILE C 449      50.579 103.946   32.329   1.00 71.98      8
ATOM   7041   N    GLY C 450      48.579 104.614   33.116   1.00 82.97      7
ATOM   7042   CA   GLY C 450      48.502 105.798   32.268   1.00 80.93      6
ATOM   7043   C    GLY C 450      48.743 105.648   30.778   1.00 79.00      6
ATOM   7044   O    GLY C 450      47.830 105.815   29.976   1.00 79.47      8
ATOM   7045   N    LEU C 451      49.982 105.359   30.405   1.00 53.93      7
ATOM   7046   CA   LEU C 451      50.367 105.186   29.007   1.00 52.47      6
ATOM   7047   CB   LEU C 451      51.494 104.173   28.908   1.00 30.07      6
```

126

```
ATOM   7048  CG  LEU C 451      52.689 104.410  29.809  1.00 29.20      6
ATOM   7049  CD1 LEU C 451      53.644 103.265  29.605  1.00 28.64      6
ATOM   7050  CD2 LEU C 451      53.342 105.743  29.498  1.00 28.84      6
ATOM   7051  C   LEU C 451      49.237 104.724  28.093  1.00 52.53      6
ATOM   7052  O   LEU C 451      49.004 105.303  27.033  1.00 52.57      8
ATOM   7053  N   ILE C 452      48.547 103.667  28.505  1.00 37.93      7
ATOM   7054  CA  ILE C 452      47.466 103.115  27.713  1.00 39.02      6
ATOM   7055  CB  ILE C 452      47.519 101.621  27.717  1.00 49.63      6
ATOM   7056  CG2 ILE C 452      46.469 101.088  26.781  1.00 51.01      6
ATOM   7057  CG1 ILE C 452      48.910 101.167  27.300  1.00 51.02      6
ATOM   7058  CD1 ILE C 452      49.150  99.705  27.517  1.00 52.72      6
ATOM   7059  C   ILE C 452      46.094 103.515  28.200  1.00 39.38      6
ATOM   7060  O   ILE C 452      45.488 102.826  29.012  1.00 40.50      8
ATOM   7061  N   THR C 453      45.591 104.621  27.680  1.00 42.99      7
ATOM   7062  CA  THR C 453      44.286 105.104  28.083  1.00 43.18      6
ATOM   7063  CB  THR C 453      44.306 106.628  28.190  1.00 78.48      6
ATOM   7064  OG1 THR C 453      42.988 107.100  28.474  1.00 82.01      8
ATOM   7065  CG2 THR C 453      44.820 107.248  26.898  1.00 77.30      6
ATOM   7066  C   THR C 453      43.214 104.675  27.093  1.00 43.15      6
ATOM   7067  O   THR C 453      43.518 104.039  26.077  1.00 43.49      8
ATOM   7068  N   SER C 454      41.963 105.017  27.397  1.00 45.38      7
ATOM   7069  CA  SER C 454      40.850 104.674  26.524  1.00 45.94      6
ATOM   7070  CB  SER C 454      39.728 104.016  27.325  1.00 81.44      6
ATOM   7071  OG  SER C 454      38.829 103.337  26.460  1.00 86.20      8
ATOM   7072  C   SER C 454      40.330 105.916  25.801  1.00 45.54      6
ATOM   7073  O   SER C 454      41.045 106.497  24.995  1.00 46.42      8
ATOM   7074  N   LEU C 455      39.099 106.339  26.076  1.00 48.01      7
ATOM   7075  CA  LEU C 455      38.560 107.513  25.396  1.00 47.92      6
ATOM   7076  CB  LEU C 455      38.567 107.277  23.889  1.00 34.19      6
ATOM   7077  CG  LEU C 455      38.176 108.510  23.095  1.00 35.88      6
ATOM   7078  CD1 LEU C 455      39.200 109.570  23.404  1.00 36.69      6
ATOM   7079  CD2 LEU C 455      38.119 108.232  21.613  1.00 35.89      6
ATOM   7080  C   LEU C 455      37.146 107.889  25.835  1.00 47.75      6
ATOM   7081  O   LEU C 455      36.266 107.033  25.900  1.00 47.58      8
ATOM   7082  N   ALA C 456      36.938 109.177  26.118  1.00 47.48      7
ATOM   7083  CA  ALA C 456      35.633 109.702  26.551  1.00 46.84      6
ATOM   7084  CB  ALA C 456      35.653 111.226  26.601  1.00 16.72      6
ATOM   7085  C   ALA C 456      34.543 109.262  25.616  1.00 46.95      6
ATOM   7086  O   ALA C 456      34.716 109.289  24.402  1.00 47.71      8
ATOM   7087  N   ALA C 457      33.408 108.883  26.177  1.00 39.38      7
ATOM   7088  CA  ALA C 457      32.315 108.433  25.350  1.00 39.45      6
ATOM   7089  CB  ALA C 457      31.103 108.211  26.187  1.00 13.87      6
ATOM   7090  C   ALA C 457      32.023 109.441  24.263  1.00 39.11      6
ATOM   7091  O   ALA C 457      32.367 109.250  23.105  1.00 39.87      8
ATOM   7092  N   TYR C 458      31.403 110.535  24.648  1.00 36.08      7
ATOM   7093  CA  TYR C 458      31.044 111.565  23.701  1.00 37.92      6
ATOM   7094  CB  TYR C 458      30.203 112.617  24.412  1.00 33.09      6
ATOM   7095  CG  TYR C 458      28.740 112.305  24.598  1.00 31.68      6
ATOM   7096  CD1 TYR C 458      28.315 111.161  25.264  1.00 31.59      6
ATOM   7097  CE1 TYR C 458      26.974 110.917  25.476  1.00 30.71      6
ATOM   7098  CD2 TYR C 458      27.782 113.191  24.150  1.00 31.70      6
ATOM   7099  CE2 TYR C 458      26.458 112.963  24.354  1.00 31.63      6
ATOM   7100  CZ  TYR C 458      26.052 111.832  25.013  1.00 31.31      6
ATOM   7101  OH  TYR C 458      24.705 111.627  25.183  1.00 32.83      8
ATOM   7102  C   TYR C 458      32.224 112.273  23.031  1.00 40.86      6
ATOM   7103  O   TYR C 458      31.997 113.158  22.206  1.00 41.46      8
```

127

```
ATOM   7104  N    ALA C 459    33.460 111.894  23.372  1.00 61.61    7
ATOM   7105  CA   ALA C 459    34.681 112.541  22.852  1.00 63.60    6
ATOM   7106  CB   ALA C 459    35.901 111.926  23.525  1.00181.11    6
ATOM   7107  C    ALA C 459    34.948 112.643  21.349  1.00 64.59    6
ATOM   7108  O    ALA C 459    34.663 111.733  20.572  1.00 65.49    8
ATOM   7109  N    ARG C 460    35.532 113.772  20.967  1.00 66.70    7
ATOM   7110  CA   ARG C 460    35.904 114.078  19.588  1.00 68.41    6
ATOM   7111  CB   ARG C 460    37.184 113.342  19.205  1.00 52.09    6
ATOM   7112  CG   ARG C 460    37.435 113.406  17.721  1.00 50.99    6
ATOM   7113  CD   ARG C 460    38.894 113.455  17.377  1.00 50.98    6
ATOM   7114  NE   ARG C 460    39.647 112.360  17.975  1.00 52.48    7
ATOM   7115  CZ   ARG C 460    40.920 112.086  17.692  1.00 52.62    6
ATOM   7116  NH1  ARG C 460    41.574 112.830  16.811  1.00 51.72    7
ATOM   7117  NH2  ARG C 460    41.547 111.082  18.302  1.00 53.37    7
ATOM   7118  C    ARG C 460    34.921 113.891  18.446  1.00 70.46    6
ATOM   7119  O    ARG C 460    34.249 112.865  18.349  1.00 70.85    8
ATOM   7120  N    VAL C 461    34.905 114.898  17.565  1.00174.70    7
ATOM   7121  CA   VAL C 461    34.087 114.968  16.346  1.00175.02    6
ATOM   7122  CB   VAL C 461    32.671 114.371  16.535  1.00 46.89    6
ATOM   7123  CG1  VAL C 461    31.623 115.263  15.908  1.00 47.41    6
ATOM   7124  CG2  VAL C 461    32.607 113.039  15.853  1.00 45.72    6
ATOM   7125  C    VAL C 461    33.947 116.401  15.824  1.00175.88    6
ATOM   7126  O    VAL C 461    33.629 117.314  16.586  1.00176.25    8
ATOM   7127  N    ALA C 462    34.181 116.564  14.519  1.00122.51    7
ATOM   7128  CA   ALA C 462    34.112 117.845  13.796  1.00123.73    6
ATOM   7129  CB   ALA C 462    33.877 119.005  14.752  1.00 28.29    6
ATOM   7130  C    ALA C 462    35.426 118.052  13.046  1.00125.07    6
ATOM   7131  O    ALA C 462    36.335 117.228  13.165  1.00125.53    8
ATOM   7132  N    ALA C 463    35.527 119.137  12.273  1.00128.67    7
ATOM   7133  CA   ALA C 463    36.752 119.423  11.522  1.00128.13    6
ATOM   7134  CB   ALA C 463    36.757 120.887  11.040  1.00 50.08    6
ATOM   7135  C    ALA C 463    37.923 119.147  12.469  1.00127.82    6
ATOM   7136  O    ALA C 463    38.264 119.978  13.318  1.00128.71    8
ATOM   7137  N    LEU C 464    38.525 117.967  12.313  1.00 54.63    7
ATOM   7138  CA   LEU C 464    39.616 117.507  13.185  1.00 54.40    6
ATOM   7139  CB   LEU C 464    39.453 116.008  13.435  1.00112.52    6
ATOM   7140  CG   LEU C 464    40.430 115.419  14.447  1.00113.36    6
ATOM   7141  CD1  LEU C 464    40.184 116.035  15.817  1.00114.51    6
ATOM   7142  CD2  LEU C 464    40.258 113.913  14.487  1.00114.04    6
ATOM   7143  C    LEU C 464    41.089 117.786  12.838  1.00 53.28    6
ATOM   7144  O    LEU C 464    41.760 117.000  12.154  1.00 51.53    8
ATOM   7145  N    GLY C 465    41.581 118.912  13.348  1.00 98.23    7
ATOM   7146  CA   GLY C 465    42.966 119.278  13.148  1.00 96.83    6
ATOM   7147  C    GLY C 465    43.717 118.426  14.147  1.00 96.13    6
ATOM   7148  O    GLY C 465    44.832 117.980  13.879  1.00 95.71    8
ATOM   7149  N    PHE C 466    43.074 118.196  15.298  1.00 84.96    7
ATOM   7150  CA   PHE C 466    43.628 117.378  16.383  1.00 82.91    6
ATOM   7151  CB   PHE C 466    45.070 117.811  16.710  1.00 75.66    6
ATOM   7152  CG   PHE C 466    45.199 119.201  17.341  1.00 75.74    6
ATOM   7153  CD1  PHE C 466    44.847 119.421  18.669  1.00 75.04    6
ATOM   7154  CD2  PHE C 466    45.756 120.265  16.619  1.00 75.64    6
ATOM   7155  CE1  PHE C 466    45.052 120.656  19.272  1.00 75.12    6
ATOM   7156  CE2  PHE C 466    45.962 121.511  17.220  1.00 74.81    6
ATOM   7157  CZ   PHE C 466    45.612 121.702  18.547  1.00 75.38    6
ATOM   7158  C    PHE C 466    42.810 117.348  17.677  1.00 81.00    6
ATOM   7159  O    PHE C 466    41.709 117.890  17.756  1.00 80.79    8
```

128

```
ATOM    7160  N   ILE C 467      43.395 116.681  18.667  1.00 42.94      7
ATOM    7161  CA  ILE C 467      42.888 116.482  20.033  1.00 41.29      6
ATOM    7162  CB  ILE C 467      43.575 117.476  20.973  1.00110.42      6
ATOM    7163  CG2 ILE C 467      43.261 117.123  22.413  1.00109.50      6
ATOM    7164  CG1 ILE C 467      45.090 117.367  20.775  1.00112.81      6
ATOM    7165  CD1 ILE C 467      45.907 118.427  21.464  1.00116.18      6
ATOM    7166  C   ILE C 467      41.403 116.366  20.449  1.00 38.46      6
ATOM    7167  O   ILE C 467      40.613 117.291  20.366  1.00 37.83      8
ATOM    7168  N   ARG C 468      41.089 115.184  20.960  1.00 64.17      7
ATOM    7169  CA  ARG C 468      39.781 114.749  21.437  1.00 61.14      6
ATOM    7170  CB  ARG C 468      39.993 113.970  22.723  1.00 65.30      6
ATOM    7171  CG  ARG C 468      41.068 112.935  22.573  1.00 63.34      6
ATOM    7172  CD  ARG C 468      41.819 112.761  23.857  1.00 62.63      6
ATOM    7173  NE  ARG C 468      42.908 111.817  23.679  1.00 62.42      7
ATOM    7174  CZ  ARG C 468      43.681 111.375  24.662  1.00 62.87      6
ATOM    7175  NH1 ARG C 468      43.487 111.796  25.906  1.00 62.17      7
ATOM    7176  NH2 ARG C 468      44.647 110.505  24.398  1.00 62.03      7
ATOM    7177  C   ARG C 468      38.578 115.666  21.618  1.00 59.37      6
ATOM    7178  O   ARG C 468      37.467 115.218  21.389  1.00 59.52      8
ATOM    7179  N   THR C 469      38.762 116.911  22.046  1.00 28.37      7
ATOM    7180  CA  THR C 469      37.618 117.830  22.247  1.00 27.33      6
ATOM    7181  CB  THR C 469      37.348 118.700  20.995  1.00 77.07      6
ATOM    7182  OG1 THR C 469      36.958 117.865  19.905  1.00 77.37      8
ATOM    7183  CG2 THR C 469      38.578 119.489  20.600  1.00 77.50      6
ATOM    7184  C   THR C 469      36.261 117.182  22.627  1.00 25.69      6
ATOM    7185  O   THR C 469      35.666 116.455  21.828  1.00 25.93      8
ATOM    7186  N   PRO C 470      35.737 117.473  23.842  1.00 39.55      7
ATOM    7187  CD  PRO C 470      36.260 118.385  24.884  1.00 24.20      6
ATOM    7188  CA  PRO C 470      34.457 116.892  24.268  1.00 38.89      6
ATOM    7189  CB  PRO C 470      34.534 116.963  25.779  1.00 22.75      6
ATOM    7190  CG  PRO C 470      35.172 118.308  25.980  1.00 22.38      6
ATOM    7191  C   PRO C 470      33.304 117.716  23.741  1.00 39.28      6
ATOM    7192  O   PRO C 470      33.425 118.405  22.726  1.00 41.11      8
ATOM    7193  N   TYR C 471      32.182 117.654  24.437  1.00 32.55      7
ATOM    7194  CA  TYR C 471      31.016 118.403  24.025  1.00 34.52      6
ATOM    7195  CB  TYR C 471      29.879 117.433  23.683  1.00 75.03      6
ATOM    7196  CG  TYR C 471      30.055 116.756  22.333  1.00 77.73      6
ATOM    7197  CD1 TYR C 471      31.199 116.012  22.041  1.00 77.86      6
ATOM    7198  CE1 TYR C 471      31.398 115.467  20.777  1.00 78.14      6
ATOM    7199  CD2 TYR C 471      29.109 116.923  21.319  1.00 78.93      6
ATOM    7200  CE2 TYR C 471      29.305 116.376  20.052  1.00 78.86      6
ATOM    7201  CZ  TYR C 471      30.449 115.656  19.794  1.00 78.86      6
ATOM    7202  OH  TYR C 471      30.646 115.138  18.543  1.00 80.15      8
ATOM    7203  C   TYR C 471      30.626 119.316  25.162  1.00 35.18      6
ATOM    7204  O   TYR C 471      30.895 119.013  26.321  1.00 35.81      8
ATOM    7205  N   ARG C 472      30.017 120.450  24.841  1.00 59.06      7
ATOM    7206  CA  ARG C 472      29.589 121.380  25.876  1.00 59.21      6
ATOM    7207  CB  ARG C 472      30.739 122.306  26.280  1.00 47.34      6
ATOM    7208  CG  ARG C 472      32.014 121.578  26.692  1.00 46.47      6
ATOM    7209  CD  ARG C 472      32.857 122.380  27.671  1.00 46.11      6
ATOM    7210  NE  ARG C 472      34.206 121.839  27.775  1.00 47.37      7
ATOM    7211  CZ  ARG C 472      34.486 120.594  28.139  1.00 47.44      6
ATOM    7212  NH1 ARG C 472      33.499 119.766  28.436  1.00 46.95      7
ATOM    7213  NH2 ARG C 472      35.748 120.175  28.196  1.00 47.86      7
ATOM    7214  C   ARG C 472      28.403 122.210  25.414  1.00 60.34      6
ATOM    7215  O   ARG C 472      28.386 122.726  24.301  1.00 61.28      8
```

129

```
ATOM   7216  N    ARG C 473      27.403 122.330  26.272  1.00 55.07      7
ATOM   7217  CA   ARG C 473      26.227 123.115  25.943  1.00 56.77      6
ATOM   7218  CB   ARG C 473      25.078 122.723  26.869  1.00 63.20      6
ATOM   7219  CG   ARG C 473      23.718 122.857  26.235  1.00 63.69      6
ATOM   7220  CD   ARG C 473      22.651 122.179  27.073  1.00 64.69      6
ATOM   7221  NE   ARG C 473      21.331 122.309  26.459  1.00 66.59      7
ATOM   7222  CZ   ARG C 473      20.197 121.877  27.007  1.00 67.61      6
ATOM   7223  NH1  ARG C 473      20.222 121.278  28.194  1.00 68.38      7
ATOM   7224  NH2  ARG C 473      19.035 122.055  26.378  1.00 66.88      7
ATOM   7225  C    ARG C 473      26.575 124.604  26.091  1.00 58.13      6
ATOM   7226  O    ARG C 473      27.644 124.956  26.584  1.00 58.42      8
ATOM   7227  N    VAL C 474      25.678 125.474  25.651  1.00 43.60      7
ATOM   7228  CA   VAL C 474      25.880 126.924  25.700  1.00 45.65      6
ATOM   7229  CB   VAL C 474      26.764 127.410  24.510  1.00105.12      6
ATOM   7230  CG1  VAL C 474      26.961 128.919  24.573  1.00107.36      6
ATOM   7231  CG2  VAL C 474      28.103 126.694  24.511  1.00104.39      6
ATOM   7232  C    VAL C 474      24.482 127.505  25.517  1.00 46.42      6
ATOM   7233  O    VAL C 474      24.228 128.288  24.591  1.00 46.13      8
ATOM   7234  N    ALA C 475      23.572 127.085  26.390  1.00 68.26      7
ATOM   7235  CA   ALA C 475      22.171 127.507  26.346  1.00 69.34      6
ATOM   7236  CB   ALA C 475      22.074 129.017  26.224  1.00168.36      6
ATOM   7237  C    ALA C 475      21.429 126.837  25.188  1.00 69.26      6
ATOM   7238  O    ALA C 475      21.237 127.431  24.121  1.00 67.34      8
ATOM   7239  N    ALA C 476      21.031 125.590  25.422  1.00 62.24      7
ATOM   7240  CA   ALA C 476      20.295 124.784  24.455  1.00 64.22      6
ATOM   7241  CB   ALA C 476      18.887 125.337  24.294  1.00146.64      6
ATOM   7242  C    ALA C 476      20.969 124.690  23.098  1.00 65.26      6
ATOM   7243  O    ALA C 476      20.937 123.640  22.453  1.00 64.43      8
ATOM   7244  N    GLY C 477      21.561 125.802  22.677  1.00116.21      7
ATOM   7245  CA   GLY C 477      22.239 125.890  21.399  1.00118.42      6
ATOM   7246  C    GLY C 477      22.437 124.574  20.684  1.00118.96      6
ATOM   7247  O    GLY C 477      21.511 124.034  20.075  1.00119.12      8
ATOM   7248  N    ALA C 478      23.654 124.057  20.761  1.00 84.50      7
ATOM   7249  CA   ALA C 478      23.970 122.803  20.109  1.00 85.41      6
ATOM   7250  CB   ALA C 478      24.664 123.065  18.782  1.00170.39      6
ATOM   7251  C    ALA C 478      24.859 121.962  21.001  1.00 85.57      6
ATOM   7252  O    ALA C 478      24.391 121.074  21.704  1.00 84.87      8
ATOM   7253  N    VAL C 479      26.149 122.247  20.966  1.00 65.43      7
ATOM   7254  CA   VAL C 479      27.096 121.505  21.766  1.00 66.60      6
ATOM   7255  CB   VAL C 479      27.087 120.012  21.413  1.00 80.06      6
ATOM   7256  CG1  VAL C 479      26.146 119.259  22.325  1.00 80.61      6
ATOM   7257  CG2  VAL C 479      26.686 119.835  19.963  1.00 80.04      6
ATOM   7258  C    VAL C 479      28.484 122.036  21.507  1.00 67.45      6
ATOM   7259  O    VAL C 479      29.404 121.748  22.266  1.00 67.56      8
ATOM   7260  N    THR C 480      28.633 122.814  20.439  1.00 38.12      7
ATOM   7261  CA   THR C 480      29.930 123.373  20.091  1.00 37.95      6
ATOM   7262  CB   THR C 480      30.187 124.735  20.803  1.00 59.69      6
ATOM   7263  OG1  THR C 480      31.528 125.179  20.545  1.00 60.79      8
ATOM   7264  CG2  THR C 480      30.001 124.605  22.300  1.00 59.28      6
ATOM   7265  C    THR C 480      31.027 122.407  20.495  1.00 38.63      6
ATOM   7266  O    THR C 480      31.440 122.378  21.653  1.00 37.92      8
ATOM   7267  N    GLU C 481      31.485 121.601  19.546  1.00 70.47      7
ATOM   7268  CA   GLU C 481      32.553 120.649  19.819  1.00 72.47      6
ATOM   7269  CB   GLU C 481      33.082 120.056  18.512  1.00208.87      6
ATOM   7270  CG   GLU C 481      32.010 119.706  17.478  1.00208.87      6
ATOM   7271  CD   GLU C 481      31.548 120.907  16.661  1.00208.87      6
```

130

```
ATOM   7272  OE1 GLU C 481      30.845 121.784  17.209  1.00208.87       8
ATOM   7273  OE2 GLU C 481      31.893 120.978  15.461  1.00208.87       8
ATOM   7274  C   GLU C 481      33.655 121.449  20.506  1.00 71.91       6
ATOM   7275  O   GLU C 481      34.351 122.237  19.868  1.00 72.01       8
ATOM   7276  N   ALA C 482      33.796 121.258  21.812  1.00 73.53       7
ATOM   7277  CA  ALA C 482      34.796 121.982  22.580  1.00 74.20       6
ATOM   7278  CB  ALA C 482      34.829 121.473  24.006  1.00 70.38       6
ATOM   7279  C   ALA C 482      36.173 121.870  21.959  1.00 75.30       6
ATOM   7280  O   ALA C 482      36.348 121.224  20.929  1.00 75.99       8
ATOM   7281  N   ALA C 483      37.144 122.521  22.593  1.00132.12       7
ATOM   7282  CA  ALA C 483      38.531 122.523  22.136  1.00132.18       6
ATOM   7283  CB  ALA C 483      38.787 123.725  21.228  1.00145.75       6
ATOM   7284  C   ALA C 483      39.430 122.585  23.366  1.00131.50       6
ATOM   7285  O   ALA C 483      39.509 123.609  24.032  1.00131.95       8
ATOM   7286  N   VAL C 484      40.106 121.477  23.645  1.00 42.28       7
ATOM   7287  CA  VAL C 484      40.988 121.318  24.801  1.00 42.41       6
ATOM   7288  CB  VAL C 484      42.096 120.318  24.498  1.00164.56       6
ATOM   7289  CG1 VAL C 484      42.856 120.000  25.774  1.00165.45       6
ATOM   7290  CG2 VAL C 484      41.492 119.061  23.901  1.00165.59       6
ATOM   7291  C   VAL C 484      41.615 122.563  25.397  1.00 41.56       6
ATOM   7292  O   VAL C 484      41.859 122.607  26.597  1.00 42.17       8
ATOM   7293  N   ALA C 485      41.913 123.558  24.574  1.00 71.27       7
ATOM   7294  CA  ALA C 485      42.455 124.804  25.097  1.00 70.95       6
ATOM   7295  CB  ALA C 485      43.592 125.307  24.224  1.00 13.87       6
ATOM   7296  C   ALA C 485      41.266 125.766  25.064  1.00 71.12       6
ATOM   7297  O   ALA C 485      41.348 126.883  24.565  1.00 71.61       8
ATOM   7298  N   MET C 486      40.143 125.290  25.587  1.00 78.07       7
ATOM   7299  CA  MET C 486      38.918 126.067  25.625  1.00 77.99       6
ATOM   7300  CB  MET C 486      37.701 125.149  25.473  1.00 78.50       6
ATOM   7301  CG  MET C 486      36.382 125.870  25.255  1.00 78.76       6
ATOM   7302  SD  MET C 486      35.061 124.774  24.651  1.00 77.29      16
ATOM   7303  CE  MET C 486      35.149 125.096  22.898  1.00 77.76       6
ATOM   7304  C   MET C 486      38.860 126.791  26.956  1.00 78.61       6
ATOM   7305  O   MET C 486      39.085 126.197  28.017  1.00 78.63       8
ATOM   7306  N   ALA C 487      38.568 128.086  26.872  1.00157.96       7
ATOM   7307  CA  ALA C 487      38.464 128.966  28.027  1.00157.73       6
ATOM   7308  CB  ALA C 487      39.405 130.159  27.856  1.00 13.87       6
ATOM   7309  C   ALA C 487      37.030 129.460  28.164  1.00157.88       6
ATOM   7310  O   ALA C 487      36.659 130.007  29.202  1.00158.59       8
ATOM   7311  N   ALA C 488      36.238 129.255  27.109  1.00193.55       7
ATOM   7312  CA  ALA C 488      34.841 129.689  27.065  1.00194.23       6
ATOM   7313  CB  ALA C 488      33.970 128.658  26.290  1.00 20.13       6
ATOM   7314  C   ALA C 488      34.273 129.936  28.462  1.00194.39       6
ATOM   7315  O   ALA C 488      33.604 129.083  29.042  1.00195.34       8
ATOM   7316  N   ALA C 489      34.579 131.124  28.981  1.00108.29       7
ATOM   7317  CA  ALA C 489      34.156 131.609  30.292  1.00107.01       6
ATOM   7318  CB  ALA C 489      33.173 132.745  30.111  1.00 21.82       6
ATOM   7319  C   ALA C 489      33.582 130.606  31.281  1.00106.31       6
ATOM   7320  O   ALA C 489      32.551 130.878  31.894  1.00106.68       8
ATOM   7321  N   ALA C 490      34.243 129.463  31.447  1.00 94.59       7
ATOM   7322  CA  ALA C 490      33.788 128.438  32.389  1.00 93.90       6
ATOM   7323  CB  ALA C 490      33.302 129.098  33.676  1.00 13.87       6
ATOM   7324  C   ALA C 490      32.699 127.506  31.861  1.00 93.34       6
ATOM   7325  O   ALA C 490      31.927 127.859  30.972  1.00 95.08       8
ATOM   7326  N   GLU C 491      32.652 126.307  32.427  1.00 45.09       7
ATOM   7327  CA  GLU C 491      31.659 125.310  32.067  1.00 43.70       6
```

```
ATOM    7328  CB  GLU C 491      32.324 124.068  31.460  1.00101.46      6
ATOM    7329  CG  GLU C 491      33.573 123.594  32.195  1.00103.12      6
ATOM    7330  CD  GLU C 491      34.161 122.314  31.612  1.00103.44      6
ATOM    7331  OE1 GLU C 491      34.108 122.151  30.374  1.00103.66      8
ATOM    7332  OE2 GLU C 491      34.688 121.481  32.388  1.00102.72      8
ATOM    7333  C   GLU C 491      30.978 124.972  33.381  1.00 43.30      6
ATOM    7334  O   GLU C 491      31.634 124.938  34.422  1.00 43.64      8
ATOM    7335  N   ALA C 492      29.666 124.749  33.342  1.00 48.24      7
ATOM    7336  CA  ALA C 492      28.905 124.442  34.553  1.00 47.20      6
ATOM    7337  CB  ALA C 492      27.734 125.398  34.685  1.00126.11      6
ATOM    7338  C   ALA C 492      28.410 123.009  34.563  1.00 47.18      6
ATOM    7339  O   ALA C 492      27.500 122.647  33.813  1.00 47.47      8
ATOM    7340  N   ARG C 493      29.016 122.210  35.441  1.00 93.61      7
ATOM    7341  CA  ARG C 493      28.694 120.795  35.582  1.00 93.11      6
ATOM    7342  CB  ARG C 493      29.323 120.229  36.863  1.00 61.11      6
ATOM    7343  CG  ARG C 493      30.851 120.303  36.838  1.00 58.90      6
ATOM    7344  CD  ARG C 493      31.522 119.616  38.026  1.00 57.23      6
ATOM    7345  NE  ARG C 493      32.980 119.785  37.999  1.00 54.51      7
ATOM    7346  CZ  ARG C 493      33.820 119.257  38.887  1.00 52.88      6
ATOM    7347  NH1 ARG C 493      33.363 118.521  39.885  1.00 51.83      7
ATOM    7348  NH2 ARG C 493      35.123 119.456  38.772  1.00 51.80      7
ATOM    7349  C   ARG C 493      27.208 120.505  35.547  1.00 93.57      6
ATOM    7350  O   ARG C 493      26.394 121.260  36.077  1.00 93.81      8
ATOM    7351  N   TYR C 494      26.880 119.396  34.895  1.00 57.29      7
ATOM    7352  CA  TYR C 494      25.515 118.926  34.713  1.00 58.47      6
ATOM    7353  CB  TYR C 494      25.564 117.505  34.177  1.00 80.31      6
ATOM    7354  CG  TYR C 494      24.221 116.860  33.938  1.00 81.49      6
ATOM    7355  CD1 TYR C 494      23.343 117.368  32.982  1.00 81.70      6
ATOM    7356  CE1 TYR C 494      22.156 116.705  32.680  1.00 82.02      6
ATOM    7357  CD2 TYR C 494      23.870 115.677  34.599  1.00 82.19      6
ATOM    7358  CE2 TYR C 494      22.689 115.009  34.304  1.00 82.33      6
ATOM    7359  CZ  TYR C 494      21.844 115.526  33.342  1.00 82.56      6
ATOM    7360  OH  TYR C 494      20.709 114.845  33.016  1.00 83.98      8
ATOM    7361  C   TYR C 494      24.619 118.975  35.950  1.00 59.88      6
ATOM    7362  O   TYR C 494      25.062 118.690  37.073  1.00 60.16      8
ATOM    7363  N   THR C 495      23.355 119.334  35.706  1.00111.91      7
ATOM    7364  CA  THR C 495      22.294 119.446  36.711  1.00112.57      6
ATOM    7365  CB  THR C 495      22.618 118.610  37.978  1.00 98.93      6
ATOM    7366  OG1 THR C 495      23.125 117.329  37.586  1.00 98.83      8
ATOM    7367  CG2 THR C 495      21.362 118.385  38.807  1.00 99.57      6
ATOM    7368  C   THR C 495      21.986 120.904  37.107  1.00113.56      6
ATOM    7369  O   THR C 495      22.722 121.829  36.743  1.00113.52      8
ATOM    7370  N   ALA C 496      20.884 121.075  37.845  1.00 85.32      7
ATOM    7371  CA  ALA C 496      20.354 122.358  38.333  1.00 85.17      6
ATOM    7372  CB  ALA C 496      21.405 123.443  38.301  1.00 64.23      6
ATOM    7373  C   ALA C 496      19.213 122.722  37.408  1.00 85.77      6
ATOM    7374  O   ALA C 496      18.605 123.780  37.529  1.00 86.30      8
ATOM    7375  N   ALA C 497      18.938 121.810  36.483  1.00105.36      7
ATOM    7376  CA  ALA C 497      17.895 121.962  35.481  1.00106.23      6
ATOM    7377  CB  ALA C 497      17.616 120.611  34.831  1.00140.99      6
ATOM    7378  C   ALA C 497      16.589 122.579  35.969  1.00106.61      6
ATOM    7379  O   ALA C 497      16.060 122.223  37.024  1.00106.73      8
ATOM    7380  N   ALA C 498      16.082 123.516  35.178  1.00105.43      7
ATOM    7381  CA  ALA C 498      14.827 124.200  35.455  1.00106.36      6
ATOM    7382  CB  ALA C 498      15.074 125.547  36.146  1.00 32.90      6
ATOM    7383  C   ALA C 498      14.207 124.407  34.082  1.00106.88      6
```

132

```
ATOM   7384  O    ALA C 498    14.027 125.539  33.622  1.00107.64    8
ATOM   7385  N    ALA C 499    13.907 123.283  33.433  1.00111.52    7
ATOM   7386  CA   ALA C 499    13.316 123.259  32.101  1.00111.25    6
ATOM   7387  CB   ALA C 499    12.043 124.108  32.060  1.00120.72    6
ATOM   7388  C    ALA C 499    14.327 123.779  31.097  1.00110.44    6
ATOM   7389  O    ALA C 499    14.990 123.010  30.403  1.00110.80    8
ATOM   7390  N    ASN C 500    14.451 125.095  31.036  1.00 43.61    7
ATOM   7391  CA   ASN C 500    15.379 125.717  30.115  1.00 43.08    6
ATOM   7392  CB   ASN C 500    14.598 126.438  29.010  1.00114.29    6
ATOM   7393  CG   ASN C 500    13.934 125.480  28.037  1.00115.71    6
ATOM   7394  OD1  ASN C 500    14.560 125.013  27.087  1.00117.56    8
ATOM   7395  ND2  ASN C 500    12.662 125.179  28.274  1.00115.42    7
ATOM   7396  C    ASN C 500    16.288 126.710  30.834  1.00 42.38    6
ATOM   7397  O    ASN C 500    17.383 127.003  30.362  1.00 41.72    8
ATOM   7398  N    THR C 501    15.850 127.206  31.988  1.00 58.14    7
ATOM   7399  CA   THR C 501    16.627 128.206  32.725  1.00 58.92    6
ATOM   7400  CB   THR C 501    15.698 129.360  33.207  1.00174.72    6
ATOM   7401  OG1  THR C 501    14.803 129.737  32.152  1.00176.53    8
ATOM   7402  CG2  THR C 501    16.517 130.580  33.606  1.00175.70    6
ATOM   7403  C    THR C 501    17.426 127.713  33.940  1.00 57.69    6
ATOM   7404  O    THR C 501    18.193 128.476  34.537  1.00 56.54    8
ATOM   7405  N    PRO C 502    17.325 126.418  34.267  1.00 51.85    7
ATOM   7406  CD   PRO C 502    17.400 125.367  33.236  1.00194.50    6
ATOM   7407  CA   PRO C 502    18.070 125.961  35.434  1.00 51.22    6
ATOM   7408  CB   PRO C 502    19.315 125.371  34.802  1.00194.09    6
ATOM   7409  CG   PRO C 502    18.696 124.601  33.620  1.00194.75    6
ATOM   7410  C    PRO C 502    18.339 127.023  36.485  1.00 50.18    6
ATOM   7411  O    PRO C 502    19.440 127.549  36.603  1.00 49.51    8
ATOM   7412  N    ALA C 503    17.302 127.346  37.242  1.00 83.31    7
ATOM   7413  CA   ALA C 503    17.443 128.326  38.299  1.00 82.70    6
ATOM   7414  CB   ALA C 503    16.079 128.700  38.858  1.00157.97    6
ATOM   7415  C    ALA C 503    18.287 127.646  39.366  1.00 81.70    6
ATOM   7416  O    ALA C 503    17.863 126.653  39.968  1.00 80.59    8
ATOM   7417  N    ALA C 504    19.486 128.176  39.587  1.00 61.52    7
ATOM   7418  CA   ALA C 504    20.387 127.599  40.565  1.00 61.35    6
ATOM   7419  CB   ALA C 504    21.666 127.154  39.877  1.00150.60    6
ATOM   7420  C    ALA C 504    20.723 128.532  41.710  1.00 60.28    6
ATOM   7421  O    ALA C 504    20.310 128.309  42.847  1.00 59.15    8
ATOM   7422  N    GLY C 505    21.464 129.586  41.391  1.00 89.86    7
ATOM   7423  CA   GLY C 505    21.901 130.528  42.403  1.00 90.42    6
ATOM   7424  C    GLY C 505    23.341 130.117  42.636  1.00 90.60    6
ATOM   7425  O    GLY C 505    24.243 130.940  42.799  1.00 91.07    8
ATOM   7426  N    ASP C 506    23.544 128.807  42.646  1.00 82.76    7
ATOM   7427  CA   ASP C 506    24.864 128.229  42.806  1.00 81.90    6
ATOM   7428  CB   ASP C 506    25.011 127.538  44.159  1.00 67.53    6
ATOM   7429  CG   ASP C 506    25.609 128.442  45.207  1.00 66.91    6
ATOM   7430  OD1  ASP C 506    26.570 129.162  44.876  1.00 66.91    8
ATOM   7431  OD2  ASP C 506    25.132 128.427  46.361  1.00 66.05    8
ATOM   7432  C    ASP C 506    25.026 127.210  41.694  1.00 81.36    6
ATOM   7433  O    ASP C 506    24.542 126.082  41.796  1.00 81.62    8
ATOM   7434  N    ARG C 507    25.683 127.624  40.617  1.00 58.94    7
ATOM   7435  CA   ARG C 507    25.907 126.735  39.493  1.00 57.88    6
ATOM   7436  CB   ARG C 507    25.913 127.528  38.176  1.00 68.18    6
ATOM   7437  CG   ARG C 507    24.603 128.259  37.838  1.00 67.43    6
ATOM   7438  CD   ARG C 507    23.667 127.447  36.925  1.00 66.82    6
ATOM   7439  NE   ARG C 507    22.497 128.224  36.484  1.00 66.76    7
```

133

```
ATOM   7440   CZ    ARG C 507    21.711 127.902  35.452  1.00 66.55    6
ATOM   7441   NH1   ARG C 507    21.953 126.812  34.740  1.00 67.25    7
ATOM   7442   NH2   ARG C 507    20.686 128.679  35.114  1.00 66.00    7
ATOM   7443   C     ARG C 507    27.267 126.094  39.726  1.00 57.63    6
ATOM   7444   O     ARG C 507    28.287 126.763  39.609  1.00 57.50    8
ATOM   7445   N     ILE C 508    27.276 124.810  40.084  1.00 61.89    7
ATOM   7446   CA    ILE C 508    28.528 124.088  40.314  1.00 62.24    6
ATOM   7447   CB    ILE C 508    28.281 122.634  40.777  1.00 88.29    6
ATOM   7448   CG2   ILE C 508    29.423 122.182  41.678  1.00 87.84    6
ATOM   7449   CG1   ILE C 508    26.928 122.516  41.492  1.00 89.46    6
ATOM   7450   CD1   ILE C 508    26.782 123.365  42.747  1.00 92.22    6
ATOM   7451   C     ILE C 508    29.201 124.047  38.950  1.00 62.15    6
ATOM   7452   O     ILE C 508    28.743 123.347  38.046  1.00 62.11    8
ATOM   7453   N     ALA C 509    30.287 124.791  38.789  1.00 52.75    7
ATOM   7454   CA    ALA C 509    30.936 124.835  37.490  1.00 53.21    6
ATOM   7455   CB    ALA C 509    30.547 126.118  36.771  1.00107.64    6
ATOM   7456   C     ALA C 509    32.441 124.699  37.515  1.00 53.71    6
ATOM   7457   O     ALA C 509    33.103 124.973  38.522  1.00 53.78    8
ATOM   7458   N     THR C 510    32.963 124.276  36.370  1.00 30.63    7
ATOM   7459   CA    THR C 510    34.387 124.060  36.170  1.00 32.20    6
ATOM   7460   CB    THR C 510    34.670 122.720  35.398  1.00 79.27    6
ATOM   7461   OG1   THR C 510    33.839 121.663  35.897  1.00 79.86    8
ATOM   7462   CG2   THR C 510    36.116 122.308  35.568  1.00 80.57    6
ATOM   7463   C     THR C 510    34.898 125.202  35.304  1.00 33.62    6
ATOM   7464   O     THR C 510    34.344 125.480  34.241  1.00 33.24    8
ATOM   7465   N     ASP C 511    35.938 125.879  35.769  1.00 82.32    7
ATOM   7466   CA    ASP C 511    36.535 126.947  34.991  1.00 85.09    6
ATOM   7467   CB    ASP C 511    36.118 128.327  35.514  1.00169.52    6
ATOM   7468   CG    ASP C 511    36.831 128.715  36.783  1.00172.77    6
ATOM   7469   OD1   ASP C 511    36.832 127.907  37.733  1.00174.27    8
ATOM   7470   OD2   ASP C 511    37.384 129.834  36.830  1.00173.99    8
ATOM   7471   C     ASP C 511    38.033 126.725  35.116  1.00 86.28    6
ATOM   7472   O     ASP C 511    38.574 126.629  36.218  1.00 86.46    8
ATOM   7473   N     ARG C 512    38.688 126.604  33.967  1.00 86.90    7
ATOM   7474   CA    ARG C 512    40.122 126.357  33.889  1.00 87.82    6
ATOM   7475   CB    ARG C 512    40.927 127.487  34.541  1.00 96.06    6
ATOM   7476   CG    ARG C 512    42.398 127.386  34.195  1.00 96.74    6
ATOM   7477   CD    ARG C 512    43.316 128.011  35.217  1.00 96.67    6
ATOM   7478   NE    ARG C 512    44.680 127.551  34.979  1.00 96.37    7
ATOM   7479   CZ    ARG C 512    45.720 127.823  35.757  1.00 96.51    6
ATOM   7480   NH1   ARG C 512    45.570 128.568  36.843  1.00 97.43    7
ATOM   7481   NH2   ARG C 512    46.912 127.332  35.451  1.00 95.66    7
ATOM   7482   C     ARG C 512    40.482 125.039  34.561  1.00 88.16    6
ATOM   7483   O     ARG C 512    40.539 123.993  33.915  1.00 88.76    8
ATOM   7484   N     ALA C 513    40.722 125.096  35.865  1.00141.03    7
ATOM   7485   CA    ALA C 513    41.086 123.908  36.616  1.00141.99    6
ATOM   7486   CB    ALA C 513    42.563 123.963  36.978  1.00124.59    6
ATOM   7487   C     ALA C 513    40.242 123.771  37.874  1.00141.81    6
ATOM   7488   O     ALA C 513    39.400 122.873  37.972  1.00141.21    8
ATOM   7489   N     ALA C 514    40.478 124.663  38.834  1.00 56.61    7
ATOM   7490   CA    ALA C 514    39.745 124.653  40.094  1.00 56.03    6
ATOM   7491   CB    ALA C 514    39.916 125.989  40.800  1.00 86.46    6
ATOM   7492   C     ALA C 514    38.260 124.367  39.871  1.00 56.39    6
ATOM   7493   O     ALA C 514    37.675 124.770  38.859  1.00 56.05    8
ATOM   7494   N     ALA C 515    37.662 123.655  40.819  1.00 79.23    7
ATOM   7495   CA    ALA C 515    36.248 123.320  40.753  1.00 80.00    6
```

134

ATOM	7496	CB	ALA C 515	35.969	122.106	41.635	1.00 13.87	6
ATOM	7497	C	ALA C 515	35.475	124.530	41.263	1.00 80.71	6
ATOM	7498	O	ALA C 515	34.437	124.386	41.905	1.00 81.84	8
ATOM	7499	N	ARG C 516	35.989	125.720	40.960	1.00 51.67	7
ATOM	7500	CA	ARG C 516	35.402	126.977	41.414	1.00 52.83	6
ATOM	7501	CB	ARG C 516	35.864	128.127	40.508	1.00184.59	6
ATOM	7502	CG	ARG C 516	37.372	128.365	40.645	1.00186.25	6
ATOM	7503	CD	ARG C 516	37.860	129.694	40.076	1.00188.19	6
ATOM	7504	NE	ARG C 516	39.271	129.915	40.405	1.00188.67	7
ATOM	7505	CZ	ARG C 516	39.960	131.008	40.087	1.00188.92	6
ATOM	7506	NH1	ARG C 516	39.377	131.999	39.425	1.00188.66	7
ATOM	7507	NH2	ARG C 516	41.237	131.113	40.435	1.00187.95	7
ATOM	7508	C	ARG C 516	33.892	127.000	41.620	1.00 53.89	6
ATOM	7509	O	ARG C 516	33.109	126.812	40.684	1.00 53.00	8
ATOM	7510	N	ARG C 517	33.538	127.218	42.894	1.00 97.04	7
ATOM	7511	CA	ARG C 517	32.179	127.293	43.460	1.00 99.09	6
ATOM	7512	CB	ARG C 517	32.102	128.467	44.452	1.00153.60	6
ATOM	7513	CG	ARG C 517	30.689	128.839	44.899	1.00154.88	6
ATOM	7514	CD	ARG C 517	30.408	128.483	46.359	1.00156.22	6
ATOM	7515	NE	ARG C 517	31.052	129.399	47.300	1.00156.32	7
ATOM	7516	CZ	ARG C 517	30.759	129.473	48.598	1.00156.14	6
ATOM	7517	NH1	ARG C 517	29.827	128.685	49.126	1.00155.63	7
ATOM	7518	NH2	ARG C 517	31.397	130.338	49.373	1.00156.15	7
ATOM	7519	C	ARG C 517	31.014	127.388	42.501	1.00 99.92	6
ATOM	7520	O	ARG C 517	30.392	126.388	42.151	1.00 99.19	8
ATOM	7521	N	ALA C 518	30.710	128.610	42.096	1.00151.09	7
ATOM	7522	CA	ALA C 518	29.613	128.841	41.187	1.00154.07	6
ATOM	7523	CB	ALA C 518	28.288	128.715	41.932	1.00 16.95	6
ATOM	7524	C	ALA C 518	29.757	130.227	40.597	1.00156.60	6
ATOM	7525	O	ALA C 518	29.198	131.186	41.124	1.00158.28	8
ATOM	7526	N	GLY C 519	30.521	130.336	39.513	1.00153.30	7
ATOM	7527	CA	GLY C 519	30.706	131.628	38.875	1.00155.29	6
ATOM	7528	C	GLY C 519	29.359	132.307	38.758	1.00156.47	6
ATOM	7529	O	GLY C 519	29.251	133.535	38.738	1.00156.88	8
ATOM	7530	N	ALA C 520	28.327	131.473	38.677	1.00125.80	7
ATOM	7531	CA	ALA C 520	26.946	131.917	38.582	1.00127.15	6
ATOM	7532	CB	ALA C 520	26.489	132.455	39.933	1.00108.64	6
ATOM	7533	C	ALA C 520	26.659	132.950	37.494	1.00128.57	6
ATOM	7534	O	ALA C 520	25.733	133.753	37.644	1.00129.26	8
ATOM	7535	N	PRO C 521	27.425	132.938	36.378	1.00208.87	7
ATOM	7536	CD	PRO C 521	28.431	131.966	35.911	1.00138.40	6
ATOM	7537	CA	PRO C 521	27.154	133.928	35.330	1.00208.87	6
ATOM	7538	CB	PRO C 521	27.887	133.359	34.120	1.00137.39	6
ATOM	7539	CG	PRO C 521	29.061	132.689	34.740	1.00137.82	6
ATOM	7540	C	PRO C 521	25.657	134.027	35.098	1.00208.87	6
ATOM	7541	O	PRO C 521	25.151	135.052	34.643	1.00208.87	8
ATOM	7542	N	ALA C 522	24.963	132.944	35.428	1.00126.01	7
ATOM	7543	CA	ALA C 522	23.522	132.869	35.290	1.00125.89	6
ATOM	7544	CB	ALA C 522	22.857	133.341	36.580	1.00182.72	6
ATOM	7545	C	ALA C 522	23.029	133.693	34.100	1.00125.77	6
ATOM	7546	O	ALA C 522	22.082	134.471	34.219	1.00125.75	8
ATOM	7547	N	ALA C 523	23.689	133.530	32.954	1.00135.59	7
ATOM	7548	CA	ALA C 523	23.308	134.246	31.737	1.00135.13	6
ATOM	7549	CB	ALA C 523	24.499	134.348	30.776	1.00 81.38	6
ATOM	7550	C	ALA C 523	22.161	133.503	31.070	1.00135.17	6
ATOM	7551	O	ALA C 523	21.694	133.912	30.009	1.00135.05	8

```
ATOM    7552   N    ALA C 524    21.728 132.410 31.702  1.00120.70    7
ATOM    7553   CA   ALA C 524    20.631 131.582 31.208  1.00120.84    6
ATOM    7554   CB   ALA C 524    19.303 132.271 31.483  1.00194.26    6
ATOM    7555   C    ALA C 524    20.788 131.299 29.713  1.00120.68    6
ATOM    7556   O    ALA C 524    21.040 130.160 29.309  1.00120.75    8
ATOM    7557   N    ALA C 525    20.609 132.336 28.898  1.00141.28    7
ATOM    7558   CA   ALA C 525    20.779 132.240 27.452  1.00140.31    6
ATOM    7559   CB   ALA C 525    20.321 133.532 26.791  1.00135.97    6
ATOM    7560   C    ALA C 525    22.287 132.059 27.307  1.00139.91    6
ATOM    7561   O    ALA C 525    23.009 132.243 28.287  1.00139.53    8
ATOM    7562   N    PRO C 526    22.788 131.771 26.089  1.00159.42    7
ATOM    7563   CD   PRO C 526    22.311 132.434 24.863  1.00208.87    6
ATOM    7564   CA   PRO C 526    24.231 131.581 25.970  1.00159.07    6
ATOM    7565   CB   PRO C 526    24.677 132.935 25.461  1.00208.87    6
ATOM    7566   CG   PRO C 526    23.575 133.212 24.394  1.00208.87    6
ATOM    7567   C    PRO C 526    24.881 131.136 27.273  1.00158.57    6
ATOM    7568   O    PRO C 526    25.861 131.715 27.732  1.00159.08    8
ATOM    7569   N    ALA C 527    24.287 130.095 27.854  1.00119.34    7
ATOM    7570   CA   ALA C 527    24.705 129.485 29.113  1.00118.20    6
ATOM    7571   CB   ALA C 527    24.608 127.986 28.990  1.00 51.31    6
ATOM    7572   C    ALA C 527    26.107 129.872 29.563  1.00117.87    6
ATOM    7573   O    ALA C 527    27.074 129.546 28.881  1.00118.65    8
ATOM    7574   N    ALA C 528    26.206 130.545 30.714  1.00187.90    7
ATOM    7575   CA   ALA C 528    27.488 130.992 31.273  1.00186.63    6
ATOM    7576   CB   ALA C 528    27.687 130.398 32.677  1.00 25.37    6
ATOM    7577   C    ALA C 528    28.638 130.583 30.358  1.00186.26    6
ATOM    7578   O    ALA C 528    29.355 129.626 30.646  1.00186.75    8
ATOM    7579   N    ALA C 529    28.798 131.312 29.254  1.00208.87    7
ATOM    7580   CA   ALA C 529    29.829 131.018 28.259  1.00208.87    6
ATOM    7581   CB   ALA C 529    31.159 130.779 28.936  1.00108.91    6
ATOM    7582   C    ALA C 529    29.386 129.768 27.498  1.00208.87    6
ATOM    7583   O    ALA C 529    28.406 129.810 26.756  1.00208.87    8
ATOM    7584   N    ALA C 530    30.106 128.663 27.676  1.00 84.61    7
ATOM    7585   CA   ALA C 530    29.747 127.402 27.033  1.00 80.94    6
ATOM    7586   CB   ALA C 530    30.852 126.936 26.058  1.00 32.73    6
ATOM    7587   C    ALA C 530    29.536 126.378 28.146  1.00 78.57    6
ATOM    7588   O    ALA C 530    29.626 125.177 27.918  1.00 78.56    8
ATOM    7589   N    ALA C 531    29.252 126.877 29.351  1.00 55.15    7
ATOM    7590   CA   ALA C 531    29.011 126.049 30.535  1.00 52.08    6
ATOM    7591   CB   ALA C 531    28.402 126.892 31.633  1.00 68.22    6
ATOM    7592   C    ALA C 531    28.098 124.878 30.236  1.00 50.47    6
ATOM    7593   O    ALA C 531    27.437 124.863 29.208  1.00 50.11    8
ATOM    7594   N    MET C 532    28.050 123.911 31.147  1.00 83.34    7
ATOM    7595   CA   MET C 532    27.218 122.716 30.980  1.00 82.40    6
ATOM    7596   CB   MET C 532    25.903 123.054 30.258  1.00107.38    6
ATOM    7597   CG   MET C 532    24.800 123.637 31.124  1.00108.62    6
ATOM    7598   SD   MET C 532    23.914 122.374 32.061  1.00111.01   16
ATOM    7599   CE   MET C 532    22.767 121.732 30.820  1.00108.74    6
ATOM    7600   C    MET C 532    27.920 121.596 30.205  1.00 80.11    6
ATOM    7601   O    MET C 532    28.729 121.845 29.304  1.00 79.97    8
ATOM    7602   N    ASP C 533    27.597 120.358 30.561  1.00 45.22    7
ATOM    7603   CA   ASP C 533    28.167 119.201 29.894  1.00 42.94    6
ATOM    7604   CB   ASP C 533    29.153 118.488 30.815  1.00118.04    6
ATOM    7605   CG   ASP C 533    30.377 119.314 31.092  1.00119.82    6
ATOM    7606   OD1  ASP C 533    30.962 119.851 30.126  1.00120.83    8
ATOM    7607   OD2  ASP C 533    30.758 119.421 32.274  1.00120.99    8
```

136

ATOM	7608	C	ASP	C	533	27.080	118.227	29.470	1.00	40.69	6
ATOM	7609	O	ASP	C	533	26.354	117.706	30.304	1.00	39.20	8
ATOM	7610	N	VAL	C	534	26.965	117.987	28.170	1.00	45.56	7
ATOM	7611	CA	VAL	C	534	25.972	117.052	27.673	1.00	43.30	6
ATOM	7612	CB	VAL	C	534	26.208	116.733	26.180	1.00	56.00	6
ATOM	7613	CG1	VAL	C	534	24.884	116.584	25.472	1.00	57.40	6
ATOM	7614	CG2	VAL	C	534	27.060	117.801	25.536	1.00	55.70	6
ATOM	7615	C	VAL	C	534	26.176	115.768	28.479	1.00	41.63	6
ATOM	7616	O	VAL	C	534	27.102	115.012	28.200	1.00	42.30	8
ATOM	7617	N	SER	C	535	25.336	115.516	29.480	1.00	31.85	7
ATOM	7618	CA	SER	C	535	25.480	114.314	30.315	1.00	30.44	6
ATOM	7619	CB	SER	C	535	25.198	113.049	29.505	1.00	52.78	6
ATOM	7620	OG	SER	C	535	23.802	112.782	29.432	1.00	53.48	8
ATOM	7621	C	SER	C	535	26.837	114.172	30.991	1.00	29.50	6
ATOM	7622	O	SER	C	535	27.797	114.846	30.651	1.00	29.54	8
ATOM	7623	N	PRO	C	536	26.920	113.298	31.985	1.00	57.81	7
ATOM	7624	CD	PRO	C	536	25.784	112.903	32.819	1.00	35.93	6
ATOM	7625	CA	PRO	C	536	28.163	113.074	32.709	1.00	57.22	6
ATOM	7626	CB	PRO	C	536	27.685	112.636	34.082	1.00	35.52	6
ATOM	7627	CG	PRO	C	536	26.313	113.204	34.175	1.00	35.98	6
ATOM	7628	C	PRO	C	536	29.005	112.003	32.058	1.00	57.09	6
ATOM	7629	O	PRO	C	536	30.212	111.962	32.257	1.00	58.55	8
ATOM	7630	N	LYS	C	537	28.365	111.127	31.294	1.00	66.52	7
ATOM	7631	CA	LYS	C	537	29.072	110.045	30.620	1.00	64.77	6
ATOM	7632	CB	LYS	C	537	28.204	109.472	29.504	1.00	67.06	6
ATOM	7633	CG	LYS	C	537	26.778	109.233	29.915	1.00	69.21	6
ATOM	7634	CD	LYS	C	537	25.935	108.782	28.744	1.00	71.51	6
ATOM	7635	CE	LYS	C	537	24.456	108.743	29.123	1.00	73.76	6
ATOM	7636	NZ	LYS	C	537	24.158	107.832	30.274	1.00	76.52	7
ATOM	7637	C	LYS	C	537	30.382	110.539	30.018	1.00	63.46	6
ATOM	7638	O	LYS	C	537	31.406	109.853	30.085	1.00	65.23	8
ATOM	7639	N	GLN	C	538	30.340	111.738	29.443	1.00	14.62	7
ATOM	7640	CA	GLN	C	538	31.497	112.314	28.794	1.00	13.87	6
ATOM	7641	CB	GLN	C	538	31.140	113.679	28.237	1.00	29.72	6
ATOM	7642	CG	GLN	C	538	30.595	114.627	29.268	1.00	28.74	6
ATOM	7643	CD	GLN	C	538	30.412	116.020	28.710	1.00	26.62	6
ATOM	7644	OE1	GLN	C	538	31.361	116.639	28.232	1.00	26.40	8
ATOM	7645	NE2	GLN	C	538	29.189	116.522	28.766	1.00	25.10	7
ATOM	7646	C	GLN	C	538	32.741	112.413	29.669	1.00	13.87	6
ATOM	7647	O	GLN	C	538	33.836	112.658	29.175	1.00	14.40	8
ATOM	7648	N	VAL	C	539	32.598	112.238	30.969	1.00	61.78	7
ATOM	7649	CA	VAL	C	539	33.766	112.294	31.827	1.00	62.62	6
ATOM	7650	CB	VAL	C	539	33.397	112.686	33.274	1.00	42.82	6
ATOM	7651	CG1	VAL	C	539	34.640	112.726	34.142	1.00	43.04	6
ATOM	7652	CG2	VAL	C	539	32.720	114.012	33.289	1.00	43.33	6
ATOM	7653	C	VAL	C	539	34.295	110.878	31.857	1.00	64.28	6
ATOM	7654	O	VAL	C	539	35.237	110.578	32.583	1.00	67.03	8
ATOM	7655	N	PHE	C	540	33.697	109.997	31.064	1.00	55.62	7
ATOM	7656	CA	PHE	C	540	34.122	108.617	31.128	1.00	55.60	6
ATOM	7657	CB	PHE	C	540	33.207	107.879	32.120	1.00	28.30	6
ATOM	7658	CG	PHE	C	540	33.315	108.391	33.538	1.00	24.65	6
ATOM	7659	CD1	PHE	C	540	32.633	109.518	33.935	1.00	22.13	6
ATOM	7660	CD2	PHE	C	540	34.169	107.797	34.439	1.00	25.34	6
ATOM	7661	CE1	PHE	C	540	32.809	110.044	35.188	1.00	22.70	6
ATOM	7662	CE2	PHE	C	540	34.344	108.325	35.697	1.00	26.61	6
ATOM	7663	CZ	PHE	C	540	33.665	109.448	36.067	1.00	25.32	6

137

```
ATOM  7664  C    PHE C 540      34.271 107.803  29.846  1.00 56.85      6
ATOM  7665  O    PHE C 540      33.837 108.214  28.764  1.00 57.37      8
ATOM  7666  N    SER C 541      34.913 106.641  30.009  1.00 50.86      7
ATOM  7667  CA   SER C 541      35.186 105.669  28.952  1.00 49.99      6
ATOM  7668  CB   SER C 541      36.327 104.781  29.393  1.00 61.30      6
ATOM  7669  OG   SER C 541      36.199 104.522  30.780  1.00 65.14      8
ATOM  7670  C    SER C 541      33.971 104.800  28.664  1.00 48.71      6
ATOM  7671  O    SER C 541      33.198 104.473  29.563  1.00 48.33      8
ATOM  7672  N    LEU C 542      33.835 104.389  27.409  1.00 55.24      7
ATOM  7673  CA   LEU C 542      32.697 103.590  26.976  1.00 53.98      6
ATOM  7674  CB   LEU C 542      32.870 103.132  25.533  1.00 17.92      6
ATOM  7675  CG   LEU C 542      31.622 102.457  24.973  1.00 15.59      6
ATOM  7676  CD1  LEU C 542      30.413 103.338  25.206  1.00 15.21      6
ATOM  7677  CD2  LEU C 542      31.804 102.196  23.501  1.00 15.84      6
ATOM  7678  C    LEU C 542      32.334 102.386  27.811  1.00 54.34      6
ATOM  7679  O    LEU C 542      31.156 102.131  28.010  1.00 55.12      8
ATOM  7680  N    ASN C 543      33.309 101.622  28.291  1.00 39.01      7
ATOM  7681  CA   ASN C 543      32.926 100.467  29.086  1.00 39.30      6
ATOM  7682  CB   ASN C 543      33.774  99.207  28.743  1.00 35.95      6
ATOM  7683  CG   ASN C 543      35.259  99.387  28.936  1.00 36.82      6
ATOM  7684  OD1  ASN C 543      35.756 100.492  29.145  1.00 37.92      8
ATOM  7685  ND2  ASN C 543      35.985  98.284  28.844  1.00 35.25      7
ATOM  7686  C    ASN C 543      32.826 100.718  30.583  1.00 38.44      6
ATOM  7687  O    ASN C 543      32.380  99.850  31.331  1.00 39.50      8
ATOM  7688  N    THR C 544      33.211 101.905  31.034  1.00 57.02      7
ATOM  7689  CA   THR C 544      33.058 102.184  32.451  1.00 56.20      6
ATOM  7690  CB   THR C 544      33.889 103.384  32.944  1.00 23.10      6
ATOM  7691  OG1  THR C 544      35.242 102.966  33.159  1.00 21.43      8
ATOM  7692  CG2  THR C 544      33.332 103.924  34.261  1.00 20.88      6
ATOM  7693  C    THR C 544      31.601 102.529  32.580  1.00 57.34      6
ATOM  7694  O    THR C 544      30.917 102.020  33.457  1.00 57.84      8
ATOM  7695  N    ASN C 545      31.117 103.374  31.678  1.00 42.11      7
ATOM  7696  CA   ASN C 545      29.720 103.776  31.713  1.00 43.29      6
ATOM  7697  CB   ASN C 545      29.273 104.314  30.353  1.00 52.15      6
ATOM  7698  CG   ASN C 545      29.957 105.617  29.977  1.00 53.97      6
ATOM  7699  OD1  ASN C 545      29.700 106.662  30.566  1.00 54.69      8
ATOM  7700  ND2  ASN C 545      30.835 105.556  28.988  1.00 54.19      7
ATOM  7701  C    ASN C 545      28.845 102.592  32.091  1.00 44.50      6
ATOM  7702  O    ASN C 545      27.907 102.731  32.870  1.00 46.05      8
ATOM  7703  N    LEU C 546      29.179 101.420  31.561  1.00 60.59      7
ATOM  7704  CA   LEU C 546      28.403 100.213  31.812  1.00 60.11      6
ATOM  7705  CB   LEU C 546      28.992  99.035  31.020  1.00 37.83      6
ATOM  7706  CG   LEU C 546      29.088  99.200  29.493  1.00 37.99      6
ATOM  7707  CD1  LEU C 546      29.306  97.862  28.830  1.00 37.92      6
ATOM  7708  CD2  LEU C 546      27.821  99.807  28.958  1.00 37.51      6
ATOM  7709  C    LEU C 546      28.232  99.818  33.274  1.00 59.65      6
ATOM  7710  O    LEU C 546      27.836  98.693  33.558  1.00 61.57      8
ATOM  7711  N    ILE C 547      28.512 100.738  34.195  1.00 28.92      7
ATOM  7712  CA   ILE C 547      28.377 100.475  35.637  1.00 27.88      6
ATOM  7713  CB   ILE C 547      29.623 100.935  36.422  1.00 54.96      6
ATOM  7714  CG2  ILE C 547      29.344 100.847  37.900  1.00 56.07      6
ATOM  7715  CG1  ILE C 547      30.831 100.062  36.074  1.00 54.53      6
ATOM  7716  CD1  ILE C 547      32.127 100.537  36.711  1.00 53.36      6
ATOM  7717  C    ILE C 547      27.160 101.205  36.211  1.00 26.96      6
ATOM  7718  O    ILE C 547      27.216 102.399  36.485  1.00 25.95      8
ATOM  7719  N    PRO C 548      26.065 100.473  36.451  1.00 55.58      7
```

138

```
ATOM   7720  CD   PRO C 548      26.037  99.021  36.671  1.00 35.60      6
ATOM   7721  CA   PRO C 548      24.846 101.063  36.977  1.00 55.04      6
ATOM   7722  CB   PRO C 548      23.954  99.849  37.190  1.00 33.94      6
ATOM   7723  CG   PRO C 548      24.900  98.866  37.658  1.00 34.54      6
ATOM   7724  C    PRO C 548      25.049 101.897  38.222  1.00 55.38      6
ATOM   7725  O    PRO C 548      24.279 102.819  38.473  1.00 57.14      8
ATOM   7726  N    PHE C 549      26.061 101.611  39.022  1.00 32.51      7
ATOM   7727  CA   PHE C 549      26.220 102.467  40.191  1.00 33.20      6
ATOM   7728  CB   PHE C 549      25.645 101.798  41.446  1.00 27.42      6
ATOM   7729  CG   PHE C 549      24.130 101.793  41.503  1.00 24.30      6
ATOM   7730  CD1  PHE C 549      23.387 100.840  40.798  1.00 23.85      6
ATOM   7731  CD2  PHE C 549      23.449 102.708  42.295  1.00 22.95      6
ATOM   7732  CE1  PHE C 549      21.989 100.795  40.889  1.00 22.47      6
ATOM   7733  CE2  PHE C 549      22.058 102.665  42.387  1.00 23.27      6
ATOM   7734  CZ   PHE C 549      21.331 101.704  41.682  1.00 22.31      6
ATOM   7735  C    PHE C 549      27.650 102.941  40.445  1.00 33.28      6
ATOM   7736  O    PHE C 549      28.181 102.811  41.549  1.00 33.61      8
ATOM   7737  N    LEU C 550      28.252 103.525  39.412  1.00 29.32      7
ATOM   7738  CA   LEU C 550      29.619 104.025  39.485  1.00 29.00      6
ATOM   7739  CB   LEU C 550      30.009 104.696  38.156  1.00 46.50      6
ATOM   7740  CG   LEU C 550      31.458 105.140  37.930  1.00 45.08      6
ATOM   7741  CD1  LEU C 550      32.372 103.940  37.982  1.00 46.72      6
ATOM   7742  CD2  LEU C 550      31.594 105.833  36.586  1.00 43.39      6
ATOM   7743  C    LEU C 550      29.723 105.018  40.621  1.00 29.29      6
ATOM   7744  O    LEU C 550      30.572 104.864  41.492  1.00 27.19      8
ATOM   7745  N    GLU C 551      28.842 106.019  40.613  1.00 28.00      7
ATOM   7746  CA   GLU C 551      28.824 107.078  41.627  1.00 30.78      6
ATOM   7747  CB   GLU C 551      27.403 107.611  41.844  1.00103.26      6
ATOM   7748  CG   GLU C 551      26.502 107.570  40.629  1.00106.00      6
ATOM   7749  CD   GLU C 551      25.687 106.302  40.575  1.00108.97      6
ATOM   7750  OE1  GLU C 551      26.287 105.213  40.571  1.00108.75      8
ATOM   7751  OE2  GLU C 551      24.443 106.392  40.544  1.00110.84      8
ATOM   7752  C    GLU C 551      29.395 106.666  42.978  1.00 31.42      6
ATOM   7753  O    GLU C 551      30.171 107.403  43.564  1.00 31.29      8
ATOM   7754  N    HIS C 552      29.010 105.491  43.466  1.00 50.43      7
ATOM   7755  CA   HIS C 552      29.490 105.001  44.754  1.00 51.46      6
ATOM   7756  CB   HIS C 552      28.470 104.047  45.341  1.00 54.12      6
ATOM   7757  CG   HIS C 552      27.067 104.544  45.220  1.00 54.38      6
ATOM   7758  CD2  HIS C 552      26.123 104.312  44.276  1.00 55.28      6
ATOM   7759  ND1  HIS C 552      26.505 105.428  46.115  1.00 54.20      7
ATOM   7760  CE1  HIS C 552      25.274 105.715  45.728  1.00 55.46      6
ATOM   7761  NE2  HIS C 552      25.019 105.054  44.614  1.00 55.94      7
ATOM   7762  C    HIS C 552      30.830 104.306  44.599  1.00 51.10      6
ATOM   7763  O    HIS C 552      31.788 104.632  45.288  1.00 53.17      8
ATOM   7764  N    ASP C 553      30.893 103.337  43.701  1.00 52.36      7
ATOM   7765  CA   ASP C 553      32.134 102.629  43.435  1.00 51.21      6
ATOM   7766  CB   ASP C 553      32.087 102.026  42.036  1.00 32.32      6
ATOM   7767  CG   ASP C 553      31.310 100.750  41.982  1.00 32.47      6
ATOM   7768  OD1  ASP C 553      30.513 100.478  42.896  1.00 33.28      8
ATOM   7769  OD2  ASP C 553      31.498 100.017  41.006  1.00 31.58      8
ATOM   7770  C    ASP C 553      33.331 103.576  43.504  1.00 50.90      6
ATOM   7771  O    ASP C 553      33.383 104.580  42.786  1.00 51.83      8
ATOM   7772  N    ASP C 554      34.290 103.251  44.367  1.00 33.65      7
ATOM   7773  CA   ASP C 554      35.501 104.050  44.509  1.00 31.93      6
ATOM   7774  CB   ASP C 554      36.383 103.475  45.612  1.00 68.27      6
ATOM   7775  CG   ASP C 554      37.684 104.218  45.756  1.00 72.84      6
```

139

ATOM	7776	OD1	ASP	C	554	38.411	104.320	44.749	1.00	73.81	8
ATOM	7777	OD2	ASP	C	554	37.984	104.697	46.872	1.00	76.46	8
ATOM	7778	C	ASP	C	554	36.224	103.971	43.181	1.00	30.26	6
ATOM	7779	O	ASP	C	554	36.417	102.881	42.639	1.00	29.04	8
ATOM	7780	N	ALA	C	555	36.608	105.130	42.653	1.00	44.51	7
ATOM	7781	CA	ALA	C	555	37.301	105.204	41.370	1.00	42.66	6
ATOM	7782	CB	ALA	C	555	38.172	106.459	41.315	1.00	29.64	6
ATOM	7783	C	ALA	C	555	38.146	103.956	41.128	1.00	41.50	6
ATOM	7784	O	ALA	C	555	37.787	103.107	40.318	1.00	41.76	8
ATOM	7785	N	ASN	C	556	39.254	103.842	41.853	1.00	29.75	7
ATOM	7786	CA	ASN	C	556	40.163	102.705	41.735	1.00	29.63	6
ATOM	7787	CB	ASN	C	556	41.039	102.614	42.984	1.00	56.62	6
ATOM	7788	CG	ASN	C	556	42.286	101.789	42.758	1.00	57.90	6
ATOM	7789	OD1	ASN	C	556	42.215	100.622	42.368	1.00	58.43	8
ATOM	7790	ND2	ASN	C	556	43.443	102.395	43.000	1.00	57.43	7
ATOM	7791	C	ASN	C	556	39.482	101.351	41.500	1.00	27.87	6
ATOM	7792	O	ASN	C	556	39.574	100.778	40.417	1.00	26.94	8
ATOM	7793	N	ARG	C	557	38.807	100.831	42.515	1.00	65.96	7
ATOM	7794	CA	ARG	C	557	38.147	99.544	42.367	1.00	64.43	6
ATOM	7795	CB	ARG	C	557	37.297	99.222	43.582	1.00	26.99	6
ATOM	7796	CG	ARG	C	557	37.075	97.758	43.729	1.00	24.27	6
ATOM	7797	CD	ARG	C	557	38.387	97.118	44.108	1.00	22.59	6
ATOM	7798	NE	ARG	C	557	38.365	95.665	44.016	1.00	22.25	7
ATOM	7799	CZ	ARG	C	557	39.348	94.890	44.455	1.00	22.39	6
ATOM	7800	NH1	ARG	C	557	40.414	95.442	45.019	1.00	22.25	7
ATOM	7801	NH2	ARG	C	557	39.283	93.573	44.309	1.00	22.91	7
ATOM	7802	C	ARG	C	557	37.253	99.524	41.144	1.00	64.64	6
ATOM	7803	O	ARG	C	557	37.111	98.495	40.491	1.00	66.31	8
ATOM	7804	N	ALA	C	558	36.634	100.661	40.847	1.00	19.66	7
ATOM	7805	CA	ALA	C	558	35.756	100.756	39.690	1.00	18.12	6
ATOM	7806	CB	ALA	C	558	35.153	102.159	39.615	1.00	46.30	6
ATOM	7807	C	ALA	C	558	36.490	100.413	38.380	1.00	17.77	6
ATOM	7808	O	ALA	C	558	35.847	100.003	37.411	1.00	15.92	8
ATOM	7809	N	LEU	C	559	37.824	100.579	38.358	1.00	13.87	7
ATOM	7810	CA	LEU	C	559	38.633	100.284	37.167	1.00	13.87	6
ATOM	7811	CB	LEU	C	559	40.013	100.986	37.209	1.00	13.87	6
ATOM	7812	CG	LEU	C	559	41.269	100.503	37.978	1.00	14.77	6
ATOM	7813	CD1	LEU	C	559	41.522	99.032	37.759	1.00	14.05	6
ATOM	7814	CD2	LEU	C	559	42.504	101.289	37.513	1.00	13.87	6
ATOM	7815	C	LEU	C	559	38.822	98.781	37.046	1.00	13.87	6
ATOM	7816	O	LEU	C	559	39.047	98.256	35.960	1.00	15.26	8
ATOM	7817	N	MET	C	560	38.754	98.082	38.171	1.00	13.87	7
ATOM	7818	CA	MET	C	560	38.890	96.637	38.140	1.00	13.87	6
ATOM	7819	CB	MET	C	560	39.149	96.092	39.532	1.00	24.02	6
ATOM	7820	CG	MET	C	560	40.602	95.859	39.795	1.00	24.05	6
ATOM	7821	SD	MET	C	560	40.804	95.282	41.440	1.00	24.44	16
ATOM	7822	CE	MET	C	560	41.402	96.799	42.230	1.00	24.05	6
ATOM	7823	C	MET	C	560	37.625	96.021	37.576	1.00	13.87	6
ATOM	7824	O	MET	C	560	37.547	94.817	37.365	1.00	13.87	8
ATOM	7825	N	GLY	C	561	36.627	96.862	37.350	1.00	28.68	7
ATOM	7826	CA	GLY	C	561	35.384	96.393	36.781	1.00	29.22	6
ATOM	7827	C	GLY	C	561	35.362	96.946	35.375	1.00	30.05	6
ATOM	7828	O	GLY	C	561	35.040	96.258	34.413	1.00	30.74	8
ATOM	7829	N	SER	C	562	35.710	98.216	35.258	1.00	21.52	7
ATOM	7830	CA	SER	C	562	35.746	98.842	33.965	1.00	23.76	6
ATOM	7831	CB	SER	C	562	36.439	100.197	34.076	1.00	50.05	6

140

ATOM	7832	OG	SER	C	562	36.642	100.776	32.800	1.00	54.47	8
ATOM	7833	C	SER	C	562	36.522	97.901	33.041	1.00	23.13	6
ATOM	7834	O	SER	C	562	36.001	97.465	32.014	1.00	23.33	8
ATOM	7835	N	ASN	C	563	37.753	97.563	33.423	1.00	14.06	7
ATOM	7836	CA	ASN	C	563	38.593	96.674	32.617	1.00	14.75	6
ATOM	7837	CB	ASN	C	563	40.015	96.557	33.186	1.00	59.25	6
ATOM	7838	CG	ASN	C	563	40.754	97.873	33.222	1.00	63.28	6
ATOM	7839	OD1	ASN	C	563	40.354	98.848	32.588	1.00	67.18	8
ATOM	7840	ND2	ASN	C	563	41.857	97.902	33.959	1.00	63.33	7
ATOM	7841	C	ASN	C	563	38.006	95.285	32.598	1.00	13.87	6
ATOM	7842	O	ASN	C	563	37.452	94.842	31.617	1.00	13.87	8
ATOM	7843	N	MET	C	564	38.161	94.606	33.716	1.00	17.31	7
ATOM	7844	CA	MET	C	564	37.688	93.262	33.895	1.00	16.52	6
ATOM	7845	CB	MET	C	564	37.319	93.087	35.333	1.00	26.95	6
ATOM	7846	CG	MET	C	564	36.910	91.729	35.687	1.00	28.06	6
ATOM	7847	SD	MET	C	564	36.957	91.733	37.424	1.00	31.38	16
ATOM	7848	CE	MET	C	564	38.697	91.983	37.652	1.00	32.35	6
ATOM	7849	C	MET	C	564	36.507	92.920	33.032	1.00	16.05	6
ATOM	7850	O	MET	C	564	36.483	91.892	32.381	1.00	16.44	8
ATOM	7851	N	GLN	C	565	35.509	93.778	33.045	1.00	26.07	7
ATOM	7852	CA	GLN	C	565	34.311	93.569	32.253	1.00	26.11	6
ATOM	7853	CB	GLN	C	565	33.591	94.916	32.178	1.00	18.22	6
ATOM	7854	CG	GLN	C	565	32.342	94.971	31.365	1.00	19.82	6
ATOM	7855	CD	GLN	C	565	31.359	95.923	31.975	1.00	20.65	6
ATOM	7856	OE1	GLN	C	565	31.736	96.987	32.462	1.00	19.74	8
ATOM	7857	NE2	GLN	C	565	30.086	95.551	31.956	1.00	20.72	7
ATOM	7858	C	GLN	C	565	34.670	93.011	30.859	1.00	25.51	6
ATOM	7859	O	GLN	C	565	34.077	92.049	30.383	1.00	24.62	8
ATOM	7860	N	THR	C	566	35.677	93.612	30.235	1.00	24.10	7
ATOM	7861	CA	THR	C	566	36.160	93.219	28.909	1.00	23.98	6
ATOM	7862	CB	THR	C	566	37.506	93.906	28.548	1.00	20.36	6
ATOM	7863	OG1	THR	C	566	37.422	95.326	28.720	1.00	20.36	8
ATOM	7864	CG2	THR	C	566	37.856	93.608	27.122	1.00	20.36	6
ATOM	7865	C	THR	C	566	36.435	91.731	28.805	1.00	24.17	6
ATOM	7866	O	THR	C	566	36.010	91.071	27.870	1.00	24.04	8
ATOM	7867	N	GLN	C	567	37.187	91.226	29.769	1.00	13.87	7
ATOM	7868	CA	GLN	C	567	37.573	89.834	29.809	1.00	13.87	6
ATOM	7869	CB	GLN	C	567	38.576	89.630	30.941	1.00	44.07	6
ATOM	7870	CG	GLN	C	567	39.702	90.652	30.918	1.00	47.21	6
ATOM	7871	CD	GLN	C	567	40.555	90.643	32.173	1.00	49.95	6
ATOM	7872	OE1	GLN	C	567	40.059	90.818	33.285	1.00	50.29	8
ATOM	7873	NE2	GLN	C	567	41.852	90.451	31.996	1.00	51.77	7
ATOM	7874	C	GLN	C	567	36.394	88.894	29.967	1.00	13.87	6
ATOM	7875	O	GLN	C	567	36.579	87.756	30.369	1.00	13.87	8
ATOM	7876	N	ALA	C	568	35.194	89.381	29.644	1.00	28.36	7
ATOM	7877	CA	ALA	C	568	33.937	88.620	29.728	1.00	28.85	6
ATOM	7878	CB	ALA	C	568	32.827	89.392	29.043	1.00	75.57	6
ATOM	7879	C	ALA	C	568	34.004	87.207	29.148	1.00	31.00	6
ATOM	7880	O	ALA	C	568	34.664	86.351	29.715	1.00	32.02	8
ATOM	7881	N	VAL	C	569	33.305	86.974	28.033	1.00	22.44	7
ATOM	7882	CA	VAL	C	569	33.259	85.672	27.332	1.00	24.38	6
ATOM	7883	CB	VAL	C	569	34.054	84.547	28.049	1.00	38.29	6
ATOM	7884	CG1	VAL	C	569	33.295	84.039	29.253	1.00	39.66	6
ATOM	7885	CG2	VAL	C	569	34.321	83.413	27.085	1.00	39.89	6
ATOM	7886	C	VAL	C	569	31.831	85.164	27.129	1.00	25.75	6
ATOM	7887	O	VAL	C	569	31.252	84.512	27.996	1.00	25.33	8

```
ATOM    7888  N    PRO C 570      31.265  85.427  25.948  1.00  29.95      7
ATOM    7889  CD   PRO C 570      32.055  85.698  24.740  1.00  50.59      6
ATOM    7890  CA   PRO C 570      29.908  85.027  25.579  1.00  31.13      6
ATOM    7891  CB   PRO C 570      29.953  85.013  24.055  1.00  50.91      6
ATOM    7892  CG   PRO C 570      31.394  84.798  23.750  1.00  50.20      6
ATOM    7893  C    PRO C 570      29.480  83.694  26.138  1.00  31.83      6
ATOM    7894  O    PRO C 570      30.207  82.707  26.024  1.00  31.32      8
ATOM    7895  N    LEU C 571      28.292  83.686  26.736  1.00  31.25      7
ATOM    7896  CA   LEU C 571      27.708  82.487  27.320  1.00  32.79      6
ATOM    7897  CB   LEU C 571      27.247  82.729  28.764  1.00  13.87      6
ATOM    7898  CG   LEU C 571      28.097  83.181  29.952  1.00  13.87      6
ATOM    7899  CD1  LEU C 571      28.730  84.518  29.670  1.00  13.87      6
ATOM    7900  CD2  LEU C 571      27.205  83.294  31.181  1.00  13.87      6
ATOM    7901  C    LEU C 571      26.469  82.104  26.510  1.00  36.27      6
ATOM    7902  O    LEU C 571      26.038  82.839  25.613  1.00  35.73      8
ATOM    7903  N    ILE C 572      25.907  80.947  26.851  1.00  37.31      7
ATOM    7904  CA   ILE C 572      24.691  80.430  26.233  1.00  40.16      6
ATOM    7905  CB   ILE C 572      24.666  78.898  26.248  1.00  48.31      6
ATOM    7906  CG2  ILE C 572      23.847  78.371  25.105  1.00  49.64      6
ATOM    7907  CG1  ILE C 572      26.078  78.357  26.099  1.00  50.85      6
ATOM    7908  CD1  ILE C 572      26.167  76.917  26.439  1.00  53.55      6
ATOM    7909  C    ILE C 572      23.626  80.906  27.206  1.00  42.12      6
ATOM    7910  O    ILE C 572      23.315  80.207  28.175  1.00  44.93      8
ATOM    7911  N    ARG C 573      23.090  82.097  26.952  1.00  47.21      7
ATOM    7912  CA   ARG C 573      22.064  82.732  27.791  1.00  48.00      6
ATOM    7913  CB   ARG C 573      21.563  81.804  28.904  1.00177.52      6
ATOM    7914  CG   ARG C 573      20.346  80.973  28.541  1.00182.92      6
ATOM    7915  CD   ARG C 573      20.107  79.866  29.558  1.00188.88      6
ATOM    7916  NE   ARG C 573      18.780  79.269  29.433  1.00196.42      7
ATOM    7917  CZ   ARG C 573      18.253  78.823  28.295  1.00201.00      6
ATOM    7918  NH1  ARG C 573      18.936  78.901  27.160  1.00202.35      7
ATOM    7919  NH2  ARG C 573      17.036  78.293  28.292  1.00203.74      7
ATOM    7920  C    ARG C 573      22.711  83.940  28.410  1.00  45.92      6
ATOM    7921  O    ARG C 573      22.941  83.986  29.612  1.00  44.53      8
ATOM    7922  N    ALA C 574      22.990  84.926  27.575  1.00  36.56      7
ATOM    7923  CA   ALA C 574      23.655  86.123  28.026  1.00  36.57      6
ATOM    7924  CB   ALA C 574      24.060  86.932  26.848  1.00  28.73      6
ATOM    7925  C    ALA C 574      22.884  86.994  29.000  1.00  36.13      6
ATOM    7926  O    ALA C 574      23.401  87.345  30.057  1.00  37.99      8
ATOM    7927  N    GLN C 575      21.652  87.350  28.663  1.00  22.89      7
ATOM    7928  CA   GLN C 575      20.853  88.218  29.535  1.00  20.60      6
ATOM    7929  CB   GLN C 575      20.633  87.599  30.921  1.00  41.70      6
ATOM    7930  CG   GLN C 575      20.953  86.125  31.064  1.00  41.79      6
ATOM    7931  CD   GLN C 575      20.832  85.685  32.491  1.00  41.32      6
ATOM    7932  OE1  GLN C 575      21.412  86.300  33.374  1.00  42.31      8
ATOM    7933  NE2  GLN C 575      20.074  84.627  32.732  1.00  40.07      7
ATOM    7934  C    GLN C 575      21.542  89.557  29.756  1.00  19.44      6
ATOM    7935  O    GLN C 575      22.702  89.609  30.144  1.00  19.35      8
ATOM    7936  N    ALA C 576      20.836  90.648  29.514  1.00  19.52      7
ATOM    7937  CA   ALA C 576      21.432  91.947  29.749  1.00  19.48      6
ATOM    7938  CB   ALA C 576      20.508  93.042  29.267  1.00  59.31      6
ATOM    7939  C    ALA C 576      21.554  92.006  31.252  1.00  19.91      6
ATOM    7940  O    ALA C 576      21.283  91.029  31.937  1.00  19.51      8
ATOM    7941  N    PRO C 577      22.007  93.128  31.791  1.00  59.79      7
ATOM    7942  CD   PRO C 577      22.962  94.057  31.168  1.00  54.76      6
ATOM    7943  CA   PRO C 577      22.100  93.167  33.255  1.00  61.36      6
```

142

```
ATOM   7944  CB   PRO C 577      23.353  93.996  33.493  1.00 55.62       6
ATOM   7945  CG   PRO C 577      23.350  94.932  32.323  1.00 56.36       6
ATOM   7946  C    PRO C 577      20.824  93.813  33.827  1.00 62.40       6
ATOM   7947  O    PRO C 577      20.307  94.765  33.242  1.00 62.98       8
ATOM   7948  N    VAL C 578      20.315  93.302  34.953  1.00 42.71       7
ATOM   7949  CA   VAL C 578      19.086  93.839  35.547  1.00 41.26       6
ATOM   7950  CB   VAL C 578      18.812  93.265  36.946  1.00 30.71       6
ATOM   7951  CG1  VAL C 578      17.396  93.623  37.368  1.00 30.48       6
ATOM   7952  CG2  VAL C 578      18.969  91.759  36.936  1.00 29.50       6
ATOM   7953  C    VAL C 578      19.117  95.351  35.653  1.00 40.82       6
ATOM   7954  O    VAL C 578      18.285  96.033  35.074  1.00 41.24       8
ATOM   7955  N    VAL C 579      20.068  95.872  36.408  1.00 29.07       7
ATOM   7956  CA   VAL C 579      20.219  97.314  36.557  1.00 28.65       6
ATOM   7957  CB   VAL C 579      20.898  97.592  37.860  1.00 24.77       6
ATOM   7958  CG1  VAL C 579      20.596  98.993  38.326  1.00 24.40       6
ATOM   7959  CG2  VAL C 579      20.453  96.540  38.867  1.00 26.25       6
ATOM   7960  C    VAL C 579      21.170  97.595  35.420  1.00 28.84       6
ATOM   7961  O    VAL C 579      22.019  96.754  35.178  1.00 29.03       8
ATOM   7962  N    MET C 580      21.098  98.724  34.716  1.00 36.94       7
ATOM   7963  CA   MET C 580      22.044  98.816  33.609  1.00 37.38       6
ATOM   7964  CB   MET C 580      21.596  97.821  32.538  1.00 40.20       6
ATOM   7965  CG   MET C 580      20.188  97.982  32.025  1.00 40.57       6
ATOM   7966  SD   MET C 580      19.791  96.643  30.875  1.00 42.09      16
ATOM   7967  CE   MET C 580      19.292  97.526  29.441  1.00 42.42       6
ATOM   7968  C    MET C 580      22.586 100.046  32.870  1.00 38.01       6
ATOM   7969  O    MET C 580      23.401  99.856  31.971  1.00 38.73       8
ATOM   7970  N    THR C 581      22.205 101.277  33.195  1.00 41.27       7
ATOM   7971  CA   THR C 581      22.759 102.406  32.428  1.00 40.63       6
ATOM   7972  CB   THR C 581      24.294 102.411  32.477  1.00 23.18       6
ATOM   7973  OG1  THR C 581      24.735 102.856  33.762  1.00 22.74       8
ATOM   7974  CG2  THR C 581      24.854 103.303  31.386  1.00 23.31       6
ATOM   7975  C    THR C 581      22.356 102.267  30.958  1.00 40.22       6
ATOM   7976  O    THR C 581      22.575 101.222  30.359  1.00 41.67       8
ATOM   7977  N    GLY C 582      21.814 103.319  30.356  1.00 61.44       7
ATOM   7978  CA   GLY C 582      21.370 103.218  28.969  1.00 61.60       6
ATOM   7979  C    GLY C 582      22.265 102.711  27.832  1.00 61.20       6
ATOM   7980  O    GLY C 582      21.784 102.051  26.911  1.00 61.97       8
ATOM   7981  N    LEU C 583      23.560 103.004  27.895  1.00 33.10       7
ATOM   7982  CA   LEU C 583      24.509 102.643  26.841  1.00 29.69       6
ATOM   7983  CB   LEU C 583      25.930 102.960  27.315  1.00 14.70       6
ATOM   7984  CG   LEU C 583      26.222 104.458  27.262  1.00 13.87       6
ATOM   7985  CD1  LEU C 583      27.584 104.769  27.812  1.00 13.87       6
ATOM   7986  CD2  LEU C 583      26.118 104.910  25.826  1.00 13.87       6
ATOM   7987  C    LEU C 583      24.499 101.267  26.203  1.00 29.36       6
ATOM   7988  O    LEU C 583      24.790 101.137  25.019  1.00 29.00       8
ATOM   7989  N    GLU C 584      24.164 100.244  26.973  1.00 32.86       7
ATOM   7990  CA   GLU C 584      24.166  98.870  26.479  1.00 35.09       6
ATOM   7991  CB   GLU C 584      23.655  97.992  27.584  1.00 21.12       6
ATOM   7992  CG   GLU C 584      24.063  98.634  28.854  1.00 20.91       6
ATOM   7993  CD   GLU C 584      23.532  97.953  30.050  1.00 21.97       6
ATOM   7994  OE1  GLU C 584      22.324  97.628  30.031  1.00 20.71       8
ATOM   7995  OE2  GLU C 584      24.323  97.760  31.011  1.00 23.30       8
ATOM   7996  C    GLU C 584      23.360  98.679  25.209  1.00 38.29       6
ATOM   7997  O    GLU C 584      23.690  97.829  24.376  1.00 39.52       8
ATOM   7998  N    GLU C 585      22.314  99.487  25.051  1.00 55.36       7
ATOM   7999  CA   GLU C 585      21.450  99.423  23.874  1.00 58.23       6
```

143

```
ATOM   8000   CB    GLU C 585      20.259 100.389  24.024  1.00 85.92     6
ATOM   8001   CG    GLU C 585      19.548 100.353  25.382  1.00 89.81     6
ATOM   8002   CD    GLU C 585      18.416 101.375  25.507  1.00 92.09     6
ATOM   8003   OE1   GLU C 585      18.688 102.594  25.505  1.00 94.24     8
ATOM   8004   OE2   GLU C 585      17.247 100.956  25.612  1.00 93.62     8
ATOM   8005   C     GLU C 585      22.265  99.842  22.659  1.00 58.83     6
ATOM   8006   O     GLU C 585      21.726  99.937  21.561  1.00 58.39     8
ATOM   8007   N     ARG C 586      23.560 100.082  22.860  1.00 62.56     7
ATOM   8008   CA    ARG C 586      24.427 100.544  21.784  1.00 63.44     6
ATOM   8009   CB    ARG C 586      24.666 102.041  21.947  1.00 43.28     6
ATOM   8010   CG    ARG C 586      25.247 102.691  20.730  1.00 45.77     6
ATOM   8011   CD    ARG C 586      25.462 104.173  20.924  1.00 49.63     6
ATOM   8012   NE    ARG C 586      25.643 104.814  19.629  1.00 54.25     7
ATOM   8013   CZ    ARG C 586      24.647 105.069  18.789  1.00 57.52     6
ATOM   8014   NH1   ARG C 586      23.405 104.751  19.122  1.00 58.30     7
ATOM   8015   NH2   ARG C 586      24.895 105.604  17.601  1.00 59.21     7
ATOM   8016   C     ARG C 586      25.778  99.854  21.619  1.00 64.38     6
ATOM   8017   O     ARG C 586      26.085  99.318  20.557  1.00 65.33     8
ATOM   8018   N     VAL C 587      26.605  99.895  22.654  1.00 33.31     7
ATOM   8019   CA    VAL C 587      27.922  99.274  22.584  1.00 33.17     6
ATOM   8020   CB    VAL C 587      28.479  99.026  23.991  1.00 27.55     6
ATOM   8021   CG1   VAL C 587      29.711  98.138  23.930  1.00 26.75     6
ATOM   8022   CG2   VAL C 587      28.800 100.379  24.643  1.00 26.75     6
ATOM   8023   C     VAL C 587      27.919  97.968  21.801  1.00 34.49     6
ATOM   8024   O     VAL C 587      28.942  97.568  21.268  1.00 34.65     8
ATOM   8025   N     VAL C 588      26.771  97.308  21.725  1.00 43.57     7
ATOM   8026   CA    VAL C 588      26.665  96.056  20.988  1.00 45.37     6
ATOM   8027   CB    VAL C 588      26.054  94.956  21.871  1.00 42.64     6
ATOM   8028   CG1   VAL C 588      25.582  93.762  21.025  1.00 42.85     6
ATOM   8029   CG2   VAL C 588      27.112  94.492  22.862  1.00 45.43     6
ATOM   8030   C     VAL C 588      25.810  96.294  19.770  1.00 47.23     6
ATOM   8031   O     VAL C 588      24.911  95.522  19.434  1.00 49.80     8
ATOM   8032   N     ARG C 589      26.098  97.389  19.097  1.00 27.94     7
ATOM   8033   CA    ARG C 589      25.343  97.725  17.922  1.00 27.95     6
ATOM   8034   CB    ARG C 589      24.034  98.400  18.315  1.00 84.19     6
ATOM   8035   CG    ARG C 589      22.853  97.457  18.223  1.00 86.48     6
ATOM   8036   CD    ARG C 589      22.514  97.279  16.771  1.00 88.53     6
ATOM   8037   NE    ARG C 589      21.700  96.107  16.502  1.00 90.71     7
ATOM   8038   CZ    ARG C 589      21.102  95.897  15.336  1.00 91.23     6
ATOM   8039   NH1   ARG C 589      21.233  96.785  14.360  1.00 90.22     7
ATOM   8040   NH2   ARG C 589      20.384  94.802  15.140  1.00 92.10     7
ATOM   8041   C     ARG C 589      26.193  98.605  17.073  1.00 26.89     6
ATOM   8042   O     ARG C 589      25.901  98.817  15.912  1.00 26.93     8
ATOM   8043   N     ASP C 590      27.249  99.139  17.662  1.00 56.02     7
ATOM   8044   CA    ASP C 590      28.183  99.930  16.888  1.00 56.65     6
ATOM   8045   CB    ASP C 590      28.612 101.177  17.658  1.00 44.75     6
ATOM   8046   CG    ASP C 590      27.608 102.311  17.526  1.00 44.37     6
ATOM   8047   OD1   ASP C 590      27.206 102.624  16.389  1.00 44.16     8
ATOM   8048   OD2   ASP C 590      27.221 102.896  18.552  1.00 43.91     8
ATOM   8049   C     ASP C 590      29.341  98.947  16.689  1.00 57.18     6
ATOM   8050   O     ASP C 590      30.247  99.150  15.876  1.00 58.77     8
ATOM   8051   N     SER C 591      29.245  97.846  17.428  1.00 57.47     7
ATOM   8052   CA    SER C 591      30.215  96.760  17.403  1.00 55.46     6
ATOM   8053   CB    SER C 591      30.044  95.898  18.651  1.00 35.19     6
ATOM   8054   OG    SER C 591      28.749  95.324  18.702  1.00 33.80     8
ATOM   8055   C     SER C 591      29.982  95.893  16.182  1.00 54.43     6
```

144

```
ATOM   8056  O    SER C 591      30.718  94.940  15.924  1.00 54.69      8
ATOM   8057  N    LEU C 592      28.932  96.235  15.450  1.00 45.12      7
ATOM   8058  CA   LEU C 592      28.528  95.507  14.265  1.00 43.08      6
ATOM   8059  CB   LEU C 592      29.379  95.919  13.068  1.00 67.56      6
ATOM   8060  CG   LEU C 592      28.960  97.287  12.526  1.00 68.37      6
ATOM   8061  CD1  LEU C 592      29.673  97.540  11.217  1.00 68.27      6
ATOM   8062  CD2  LEU C 592      27.441  97.336  12.314  1.00 67.42      6
ATOM   8063  C    LEU C 592      28.586  94.011  14.474  1.00 42.04      6
ATOM   8064  O    LEU C 592      28.633  93.255  13.519  1.00 41.72      8
ATOM   8065  N    ALA C 593      28.562  93.589  15.732  1.00 25.75      7
ATOM   8066  CA   ALA C 593      28.621  92.169  16.053  1.00 26.87      6
ATOM   8067  CB   ALA C 593      29.038  91.982  17.504  1.00 31.71      6
ATOM   8068  C    ALA C 593      27.277  91.481  15.792  1.00 28.06      6
ATOM   8069  O    ALA C 593      27.219  90.258  15.622  1.00 28.12      8
ATOM   8070  N    ALA C 594      26.206  92.275  15.762  1.00 41.56      7
ATOM   8071  CA   ALA C 594      24.861  91.768  15.520  1.00 43.85      6
ATOM   8072  CB   ALA C 594      23.942  92.183  16.625  1.00 21.34      6
ATOM   8073  C    ALA C 594      24.383  92.336  14.200  1.00 46.63      6
ATOM   8074  O    ALA C 594      24.893  93.355  13.735  1.00 47.16      8
ATOM   8075  N    LEU C 595      23.389  91.680  13.613  1.00 67.64      7
ATOM   8076  CA   LEU C 595      22.848  92.063  12.312  1.00 71.12      6
ATOM   8077  CB   LEU C 595      22.225  90.828  11.667  1.00 45.48      6
ATOM   8078  CG   LEU C 595      21.863  90.819  10.187  1.00 45.09      6
ATOM   8079  CD1  LEU C 595      23.041  91.241   9.342  1.00 45.90      6
ATOM   8080  CD2  LEU C 595      21.422  89.416   9.817  1.00 45.26      6
ATOM   8081  C    LEU C 595      21.837  93.202  12.363  1.00 73.93      6
ATOM   8082  O    LEU C 595      20.920  93.194  13.179  1.00 74.05      8
ATOM   8083  N    TYR C 596      22.008  94.177  11.474  1.00 99.78      7
ATOM   8084  CA   TYR C 596      21.118  95.335  11.426  1.00103.58      6
ATOM   8085  CB   TYR C 596      21.930  96.622  11.654  1.00208.87      6
ATOM   8086  CG   TYR C 596      22.964  96.938  10.591  1.00208.87      6
ATOM   8087  CD1  TYR C 596      22.606  97.595   9.413  1.00208.87      6
ATOM   8088  CE1  TYR C 596      23.549  97.880   8.433  1.00208.87      6
ATOM   8089  CD2  TYR C 596      24.298  96.572  10.761  1.00208.87      6
ATOM   8090  CE2  TYR C 596      25.250  96.852   9.786  1.00208.87      6
ATOM   8091  CZ   TYR C 596      24.868  97.505   8.626  1.00208.87      6
ATOM   8092  OH   TYR C 596      25.808  97.779   7.662  1.00208.87      8
ATOM   8093  C    TYR C 596      20.301  95.450  10.135  1.00103.76      6
ATOM   8094  O    TYR C 596      20.854  95.557   9.038  1.00104.74      8
ATOM   8095  N    ALA C 597      18.979  95.433  10.277  1.00 56.72      7
ATOM   8096  CA   ALA C 597      18.088  95.542   9.131  1.00 57.00      6
ATOM   8097  CB   ALA C 597      16.657  95.428   9.581  1.00 13.87      6
ATOM   8098  C    ALA C 597      18.308  96.873   8.431  1.00 57.65      6
ATOM   8099  O    ALA C 597      18.686  97.850   9.067  1.00 56.88      8
ATOM   8100  N    GLU C 598      18.066  96.902   7.122  1.00 73.43      7
ATOM   8101  CA   GLU C 598      18.236  98.111   6.312  1.00 74.93      6
ATOM   8102  CB   GLU C 598      18.650  97.742   4.880  1.00128.78      6
ATOM   8103  CG   GLU C 598      20.145  97.538   4.657  1.00132.24      6
ATOM   8104  CD   GLU C 598      20.466  97.165   3.217  1.00133.80      6
ATOM   8105  OE1  GLU C 598      20.025  97.894   2.302  1.00134.77      8
ATOM   8106  OE2  GLU C 598      21.160  96.148   2.994  1.00134.91      8
ATOM   8107  C    GLU C 598      16.972  98.968   6.251  1.00 74.63      6
ATOM   8108  O    GLU C 598      16.477  99.454   7.270  1.00 74.33      8
ATOM   8109  N    GLU C 599      16.458  99.155   5.042  1.00 63.28      7
ATOM   8110  CA   GLU C 599      15.258  99.952   4.852  1.00 64.05      6
ATOM   8111  CB   GLU C 599      15.089 100.333   3.372  1.00 85.98      6
```

```
ATOM   8112  CG   GLU C 599     16.244 101.120   2.754  1.00 86.67      6
ATOM   8113  CD   GLU C 599     17.399 100.235   2.307  1.00 87.36      6
ATOM   8114  OE1  GLU C 599     17.186  99.349   1.447  1.00 87.49      8
ATOM   8115  OE2  GLU C 599     18.525 100.430   2.812  1.00 87.70      8
ATOM   8116  C    GLU C 599     14.011  99.205   5.331  1.00 64.02      6
ATOM   8117  O    GLU C 599     13.984  97.973   5.380  1.00 62.83      8
ATOM   8118  N    ASP C 600     12.989  99.981   5.681  1.00122.82      7
ATOM   8119  CA   ASP C 600     11.707  99.471   6.150  1.00123.27      6
ATOM   8120  CB   ASP C 600     10.675  99.549   5.019  1.00143.28      6
ATOM   8121  CG   ASP C 600      9.803 100.795   5.105  1.00144.39      6
ATOM   8122  OD1  ASP C 600      9.093 100.952   6.121  1.00144.36      8
ATOM   8123  OD2  ASP C 600      9.822 101.612   4.159  1.00145.27      8
ATOM   8124  C    ASP C 600     11.710  98.067   6.743  1.00123.01      6
ATOM   8125  O    ASP C 600     12.702  97.622   7.319  1.00123.81      8
ATOM   8126  N    GLY C 601     10.584  97.375   6.596  1.00 71.19      7
ATOM   8127  CA   GLY C 601     10.450  96.037   7.143  1.00 70.09      6
ATOM   8128  C    GLY C 601     10.145  94.930   6.159  1.00 69.28      6
ATOM   8129  O    GLY C 601     10.481  95.033   4.984  1.00 68.71      8
ATOM   8130  N    ALA C 602      9.496  93.880   6.664  1.00152.74      7
ATOM   8131  CA   ALA C 602      9.135  92.674   5.913  1.00152.02      6
ATOM   8132  CB   ALA C 602      9.206  92.910   4.404  1.00 75.08      6
ATOM   8133  C    ALA C 602     10.147  91.612   6.334  1.00151.47      6
ATOM   8134  O    ALA C 602     10.923  91.839   7.256  1.00152.79      8
ATOM   8135  N    VAL C 603     10.142  90.457   5.676  1.00 85.64      7
ATOM   8136  CA   VAL C 603     11.086  89.397   6.023  1.00 83.57      6
ATOM   8137  CB   VAL C 603     10.783  88.811   7.427  1.00 62.32      6
ATOM   8138  CG1  VAL C 603     11.673  89.475   8.471  1.00 61.84      6
ATOM   8139  CG2  VAL C 603      9.318  89.026   7.779  1.00 62.26      6
ATOM   8140  C    VAL C 603     11.139  88.258   5.001  1.00 82.75      6
ATOM   8141  O    VAL C 603     11.578  88.473   3.869  1.00 83.33      8
ATOM   8142  N    VAL C 604     10.707  87.061   5.418  1.00 52.44      7
ATOM   8143  CA   VAL C 604     10.677  85.827   4.600  1.00 51.13      6
ATOM   8144  CB   VAL C 604     11.256  86.016   3.177  1.00 79.65      6
ATOM   8145  CG1  VAL C 604     11.554  84.655   2.573  1.00 81.30      6
ATOM   8146  CG2  VAL C 604     10.267  86.763   2.289  1.00 79.72      6
ATOM   8147  C    VAL C 604     11.465  84.687   5.254  1.00 50.52      6
ATOM   8148  O    VAL C 604     10.923  83.620   5.533  1.00 49.82      8
ATOM   8149  N    LYS C 605     12.755  84.923   5.450  1.00 60.13      7
ATOM   8150  CA   LYS C 605     13.659  83.973   6.088  1.00 59.49      6
ATOM   8151  CB   LYS C 605     13.505  84.065   7.604  1.00 56.16      6
ATOM   8152  CG   LYS C 605     14.711  83.573   8.371  1.00 54.72      6
ATOM   8153  CD   LYS C 605     14.389  83.349   9.825  1.00 53.41      6
ATOM   8154  CE   LYS C 605     13.736  84.540  10.464  1.00 53.12      6
ATOM   8155  NZ   LYS C 605     13.411  84.236  11.885  1.00 54.21      7
ATOM   8156  C    LYS C 605     13.539  82.508   5.679  1.00 60.19      6
ATOM   8157  O    LYS C 605     13.682  82.149   4.506  1.00 60.29      8
ATOM   8158  N    VAL C 606     13.298  81.686   6.700  1.00103.81      7
ATOM   8159  CA   VAL C 606     13.147  80.231   6.641  1.00104.50      6
ATOM   8160  CB   VAL C 606     13.940  79.568   5.496  1.00 64.26      6
ATOM   8161  CG1  VAL C 606     15.419  79.955   5.579  1.00 64.08      6
ATOM   8162  CG2  VAL C 606     13.787  78.043   5.584  1.00 62.80      6
ATOM   8163  C    VAL C 606     13.767  79.762   7.941  1.00105.07      6
ATOM   8164  O    VAL C 606     13.624  78.610   8.342  1.00105.81      8
ATOM   8165  N    ASP C 607     14.472  80.690   8.579  1.00 52.06      7
ATOM   8166  CA   ASP C 607     15.158  80.455   9.843  1.00 53.06      6
ATOM   8167  CB   ASP C 607     14.166  79.941  10.877  1.00136.87      6
```

ATOM	8168	CG	ASP	C	607	13.510	81.063	11.652	1.00139.08	6
ATOM	8169	OD1	ASP	C	607	14.252	81.866	12.259	1.00139.35	8
ATOM	8170	OD2	ASP	C	607	12.264	81.142	11.660	1.00140.44	8
ATOM	8171	C	ASP	C	607	16.382	79.547	9.799	1.00 52.92	6
ATOM	8172	O	ASP	C	607	16.487	78.641	8.962	1.00 53.19	8
ATOM	8173	N	GLY	C	608	17.322	79.816	10.698	1.00114.79	7
ATOM	8174	CA	GLY	C	608	18.521	79.007	10.762	1.00114.98	6
ATOM	8175	C	GLY	C	608	19.850	79.714	10.576	1.00114.21	6
ATOM	8176	O	GLY	C	608	20.257	80.544	11.393	1.00113.43	8
ATOM	8177	N	THR	C	609	20.524	79.373	9.484	1.00 77.25	7
ATOM	8178	CA	THR	C	609	21.831	79.922	9.176	1.00 77.03	6
ATOM	8179	CB	THR	C	609	22.696	78.855	8.476	1.00 40.34	6
ATOM	8180	OG1	THR	C	609	24.089	79.185	8.604	1.00 38.50	8
ATOM	8181	CG2	THR	C	609	22.318	78.774	7.004	1.00 39.60	6
ATOM	8182	C	THR	C	609	21.780	81.178	8.305	1.00 78.19	6
ATOM	8183	O	THR	C	609	22.743	81.485	7.599	1.00 78.53	8
ATOM	8184	N	ALA	C	610	20.665	81.903	8.351	1.00102.56	7
ATOM	8185	CA	ALA	C	610	20.543	83.133	7.573	1.00103.01	6
ATOM	8186	CB	ALA	C	610	20.996	82.888	6.137	1.00 98.76	6
ATOM	8187	C	ALA	C	610	19.150	83.751	7.560	1.00103.30	6
ATOM	8188	O	ALA	C	610	18.204	83.121	7.097	1.00104.01	8
ATOM	8189	N	ILE	C	611	19.016	84.975	8.073	1.00 78.66	7
ATOM	8190	CA	ILE	C	611	17.719	85.644	8.038	1.00 78.67	6
ATOM	8191	CB	ILE	C	611	17.710	87.019	8.778	1.00 48.67	6
ATOM	8192	CG2	ILE	C	611	16.859	87.998	8.017	1.00 49.38	6
ATOM	8193	CG1	ILE	C	611	17.076	86.907	10.168	1.00 47.17	6
ATOM	8194	CD1	ILE	C	611	17.863	86.119	11.149	1.00 46.07	6
ATOM	8195	C	ILE	C	611	17.587	85.898	6.549	1.00 79.77	6
ATOM	8196	O	ILE	C	611	18.400	86.615	5.970	1.00 79.64	8
ATOM	8197	N	ALA	C	612	16.588	85.291	5.920	1.00 65.93	7
ATOM	8198	CA	ALA	C	612	16.411	85.466	4.489	1.00 67.35	6
ATOM	8199	CB	ALA	C	612	15.664	84.279	3.886	1.00127.77	6
ATOM	8200	C	ALA	C	612	15.697	86.754	4.164	1.00 68.82	6
ATOM	8201	O	ALA	C	612	14.474	86.852	4.230	1.00 69.13	8
ATOM	8202	N	VAL	C	613	16.500	87.752	3.839	1.00 87.03	7
ATOM	8203	CA	VAL	C	613	16.011	89.058	3.455	1.00 88.75	6
ATOM	8204	CB	VAL	C	613	15.435	89.009	2.035	1.00191.61	6
ATOM	8205	CG1	VAL	C	613	15.242	90.419	1.505	1.00192.00	6
ATOM	8206	CG2	VAL	C	613	16.348	88.188	1.136	1.00192.66	6
ATOM	8207	C	VAL	C	613	14.974	89.743	4.336	1.00 89.29	6
ATOM	8208	O	VAL	C	613	14.395	89.173	5.260	1.00 89.25	8
ATOM	8209	N	ARG	C	614	14.778	91.005	3.999	1.00112.69	7
ATOM	8210	CA	ARG	C	614	13.839	91.907	4.618	1.00113.97	6
ATOM	8211	CB	ARG	C	614	14.631	93.031	5.297	1.00 66.66	6
ATOM	8212	CG	ARG	C	614	15.895	93.427	4.519	1.00 65.25	6
ATOM	8213	CD	ARG	C	614	16.886	94.240	5.340	1.00 64.64	6
ATOM	8214	NE	ARG	C	614	18.182	94.315	4.666	1.00 63.93	7
ATOM	8215	CZ	ARG	C	614	19.336	94.590	5.272	1.00 64.57	6
ATOM	8216	NH1	ARG	C	614	19.369	94.822	6.573	1.00 65.21	7
ATOM	8217	NH2	ARG	C	614	20.468	94.612	4.581	1.00 65.16	7
ATOM	8218	C	ARG	C	614	13.101	92.380	3.358	1.00115.71	6
ATOM	8219	O	ARG	C	614	13.391	93.438	2.809	1.00117.13	8
ATOM	8220	N	ALA	C	615	12.175	91.546	2.896	1.00 94.59	7
ATOM	8221	CA	ALA	C	615	11.384	91.755	1.677	1.00 94.60	6
ATOM	8222	CB	ALA	C	615	10.156	90.844	1.730	1.00126.60	6
ATOM	8223	C	ALA	C	615	10.949	93.147	1.187	1.00 94.78	6

```
ATOM   8224  O    ALA C 615      10.038  93.243   0.355  1.00 95.34      8
ATOM   8225  N    ALA C 616      11.575  94.216   1.669  1.00105.19      7
ATOM   8226  CA   ALA C 616      11.209  95.562   1.227  1.00103.90      6
ATOM   8227  CB   ALA C 616      11.425  96.566   2.354  1.00115.14      6
ATOM   8228  C    ALA C 616      12.055  95.942   0.016  1.00103.39      6
ATOM   8229  O    ALA C 616      13.279  96.033   0.113  1.00103.74      8
ATOM   8230  N    ALA C 617      11.394  96.154  -1.122  1.00152.23      7
ATOM   8231  CA   ALA C 617      12.063  96.517  -2.375  1.00150.98      6
ATOM   8232  CB   ALA C 617      12.968  97.740  -2.159  1.00105.32      6
ATOM   8233  C    ALA C 617      12.871  95.345  -2.949  1.00149.51      6
ATOM   8234  O    ALA C 617      12.300  94.397  -3.490  1.00150.02      8
ATOM   8235  N    GLY C 618      14.195  95.418  -2.840  1.00105.94      7
ATOM   8236  CA   GLY C 618      15.042  94.352  -3.348  1.00103.81      6
ATOM   8237  C    GLY C 618      15.018  93.170  -2.401  1.00102.70      6
ATOM   8238  O    GLY C 618      14.029  92.962  -1.701  1.00103.42      8
ATOM   8239  N    ARG C 619      16.094  92.390  -2.368  1.00105.88      7
ATOM   8240  CA   ARG C 619      16.151  91.238  -1.470  1.00103.75      6
ATOM   8241  CB   ARG C 619      15.511  90.017  -2.137  1.00 80.95      6
ATOM   8242  CG   ARG C 619      14.646  89.240  -1.196  1.00 82.19      6
ATOM   8243  CD   ARG C 619      14.285  87.878  -1.705  1.00 83.29      6
ATOM   8244  NE   ARG C 619      14.236  86.920  -0.604  1.00 84.96      7
ATOM   8245  CZ   ARG C 619      13.425  85.865  -0.543  1.00 86.74      6
ATOM   8246  NH1  ARG C 619      12.562  85.614  -1.521  1.00 88.12      7
ATOM   8247  NH2  ARG C 619      13.494  85.040   0.494  1.00 88.66      7
ATOM   8248  C    ARG C 619      17.592  90.916  -1.052  1.00102.23      6
ATOM   8249  O    ARG C 619      18.514  91.018  -1.865  1.00103.00      8
ATOM   8250  N    ALA C 620      17.792  90.529   0.209  1.00 46.28      7
ATOM   8251  CA   ALA C 620      19.137  90.224   0.683  1.00 43.89      6
ATOM   8252  CB   ALA C 620      19.802  91.498   1.151  1.00 55.43      6
ATOM   8253  C    ALA C 620      19.216  89.184   1.781  1.00 42.30      6
ATOM   8254  O    ALA C 620      19.118  89.516   2.947  1.00 41.57      8
ATOM   8255  N    VAL C 621      19.402  87.925   1.409  1.00 53.94      7
ATOM   8256  CA   VAL C 621      19.525  86.843   2.388  1.00 52.46      6
ATOM   8257  CB   VAL C 621      19.751  85.469   1.685  1.00104.37      6
ATOM   8258  CG1  VAL C 621      20.054  84.389   2.714  1.00105.44      6
ATOM   8259  CG2  VAL C 621      18.521  85.086   0.877  1.00104.85      6
ATOM   8260  C    VAL C 621      20.730  87.155   3.284  1.00 51.08      6
ATOM   8261  O    VAL C 621      21.841  87.383   2.799  1.00 51.01      8
ATOM   8262  N    HIS C 623      20.511  87.165   4.590  1.00 53.04      7
ATOM   8263  CA   HIS C 623      21.586  87.472   5.514  1.00 51.62      6
ATOM   8264  CB   HIS C 623      21.097  88.456   6.565  1.00 49.20      6
ATOM   8265  CG   HIS C 623      21.163  89.879   6.125  1.00 48.97      6
ATOM   8266  CD2  HIS C 623      21.846  90.468   5.117  1.00 48.83      6
ATOM   8267  ND1  HIS C 623      20.476  90.888   6.765  1.00 49.45      7
ATOM   8268  CE1  HIS C 623      20.731  92.037   6.169  1.00 49.14      6
ATOM   8269  NE2  HIS C 623      21.560  91.809   5.166  1.00 49.93      7
ATOM   8270  C    HIS C 623      22.218  86.280   6.208  1.00 51.02      6
ATOM   8271  O    HIS C 623      21.585  85.619   7.036  1.00 50.48      8
ATOM   8272  N    PRO C 624      23.490  85.994   5.874  1.00 47.27      7
ATOM   8273  CD   PRO C 624      24.227  86.607   4.753  1.00 73.09      6
ATOM   8274  CA   PRO C 624      24.252  84.885   6.452  1.00 47.26      6
ATOM   8275  CB   PRO C 624      25.545  84.888   5.636  1.00 72.75      6
ATOM   8276  CG   PRO C 624      25.126  85.476   4.313  1.00 72.76      6
ATOM   8277  C    PRO C 624      24.510  85.230   7.896  1.00 47.63      6
ATOM   8278  O    PRO C 624      24.880  86.353   8.201  1.00 47.78      8
ATOM   8279  N    LEU C 625      24.313  84.285   8.796  1.00 61.90      7
```

148

ATOM	8280	CA	LEU C 625	24.561	84.590	10.191	1.00	62.50	6
ATOM	8281	CB	LEU C 625	23.341	84.190	11.036	1.00	34.04	6
ATOM	8282	CG	LEU C 625	22.009	84.938	10.871	1.00	32.77	6
ATOM	8283	CD1	LEU C 625	21.034	84.408	11.903	1.00	33.14	6
ATOM	8284	CD2	LEU C 625	22.180	86.435	11.069	1.00	33.40	6
ATOM	8285	C	LEU C 625	25.833	83.914	10.719	1.00	62.74	6
ATOM	8286	O	LEU C 625	25.827	82.711	10.981	1.00	63.85	8
ATOM	8287	N	ARG C 626	26.916	84.686	10.865	1.00	42.15	7
ATOM	8288	CA	ARG C 626	28.189	84.158	11.373	1.00	42.91	6
ATOM	8289	CB	ARG C 626	29.079	85.300	11.884	1.00	116.16	6
ATOM	8290	CG	ARG C 626	29.688	86.150	10.767	1.00	120.08	6
ATOM	8291	CD	ARG C 626	30.320	87.465	11.266	1.00	122.23	6
ATOM	8292	NE	ARG C 626	31.633	87.310	11.901	1.00	123.23	7
ATOM	8293	CZ	ARG C 626	32.401	88.329	12.294	1.00	122.68	6
ATOM	8294	NH1	ARG C 626	31.995	89.581	12.120	1.00	123.21	7
ATOM	8295	NH2	ARG C 626	33.573	88.100	12.872	1.00	122.47	7
ATOM	8296	C	ARG C 626	27.912	83.160	12.494	1.00	41.63	6
ATOM	8297	O	ARG C 626	27.615	83.550	13.623	1.00	41.46	8
ATOM	8298	N	ARG C 627	28.015	81.868	12.177	1.00	46.57	7
ATOM	8299	CA	ARG C 627	27.712	80.817	13.149	1.00	45.53	6
ATOM	8300	CB	ARG C 627	26.744	79.817	12.529	1.00	76.33	6
ATOM	8301	CG	ARG C 627	25.840	79.169	13.559	1.00	77.92	6
ATOM	8302	CD	ARG C 627	24.679	80.089	13.915	1.00	79.04	6
ATOM	8303	NE	ARG C 627	24.070	79.737	15.193	1.00	79.30	7
ATOM	8304	CZ	ARG C 627	22.786	79.914	15.474	1.00	79.43	6
ATOM	8305	NH1	ARG C 627	21.976	80.433	14.561	1.00	79.88	7
ATOM	8306	NH2	ARG C 627	22.314	79.579	16.667	1.00	78.53	7
ATOM	8307	C	ARG C 627	28.865	80.040	13.786	1.00	44.52	6
ATOM	8308	O	ARG C 627	29.764	79.547	13.101	1.00	44.13	8
ATOM	8309	N	TYR C 628	28.786	79.908	15.110	1.00	37.59	7
ATOM	8310	CA	TYR C 628	29.780	79.212	15.910	1.00	36.77	6
ATOM	8311	CB	TYR C 628	29.414	77.740	16.056	1.00	63.07	6
ATOM	8312	CG	TYR C 628	28.380	77.553	17.129	1.00	65.11	6
ATOM	8313	CD1	TYR C 628	27.139	78.197	17.047	1.00	65.45	6
ATOM	8314	CE1	TYR C 628	26.224	78.134	18.090	1.00	64.71	6
ATOM	8315	CD2	TYR C 628	28.673	76.829	18.281	1.00	65.64	6
ATOM	8316	CE2	TYR C 628	27.764	76.759	19.330	1.00	65.07	6
ATOM	8317	CZ	TYR C 628	26.545	77.419	19.232	1.00	64.58	6
ATOM	8318	OH	TYR C 628	25.678	77.393	20.301	1.00	64.00	8
ATOM	8319	C	TYR C 628	31.151	79.370	15.334	1.00	36.13	6
ATOM	8320	O	TYR C 628	31.915	78.418	15.229	1.00	35.88	8
ATOM	8321	N	ALA C 629	31.448	80.609	14.972	1.00	40.49	7
ATOM	8322	CA	ALA C 629	32.725	80.969	14.401	1.00	40.08	6
ATOM	8323	CB	ALA C 629	32.791	82.459	14.204	1.00	56.04	6
ATOM	8324	C	ALA C 629	33.851	80.530	15.303	1.00	40.02	6
ATOM	8325	O	ALA C 629	33.881	79.400	15.802	1.00	39.39	8
ATOM	8326	N	ARG C 630	34.789	81.447	15.496	1.00	24.76	7
ATOM	8327	CA	ARG C 630	35.963	81.214	16.321	1.00	26.91	6
ATOM	8328	CB	ARG C 630	37.053	80.508	15.504	1.00	70.75	6
ATOM	8329	CG	ARG C 630	36.685	80.242	14.028	1.00	73.28	6
ATOM	8330	CD	ARG C 630	35.829	78.982	13.841	1.00	74.43	6
ATOM	8331	NE	ARG C 630	35.175	78.949	12.533	1.00	74.10	7
ATOM	8332	CZ	ARG C 630	34.364	77.978	12.124	1.00	73.71	6
ATOM	8333	NH1	ARG C 630	34.102	76.947	12.920	1.00	72.93	7
ATOM	8334	NH2	ARG C 630	33.812	78.045	10.921	1.00	72.98	7
ATOM	8335	C	ARG C 630	36.432	82.593	16.741	1.00	27.84	6

```
ATOM   8336   O     ARG C 630        36.295   83.549   15.974   1.00  27.83      8
ATOM   8337   N     SER C 631        36.981   82.719   17.943   1.00  75.23      7
ATOM   8338   CA    SER C 631        37.426   84.034   18.402   1.00  77.41      6
ATOM   8339   CB    SER C 631        36.795   84.345   19.750   1.00102.85      6
ATOM   8340   OG    SER C 631        35.385   84.196   19.684   1.00104.52      8
ATOM   8341   C     SER C 631        38.932   84.156   18.515   1.00  78.51      6
ATOM   8342   O     SER C 631        39.631   83.163   18.662   1.00  79.56      8
ATOM   8343   N     ASN C 632        39.430   85.382   18.434   1.00  67.55      7
ATOM   8344   CA    ASN C 632        40.862   85.613   18.541   1.00  68.58      6
ATOM   8345   CB    ASN C 632        41.176   87.101   18.501   1.00  55.31      6
ATOM   8346   CG    ASN C 632        41.131   87.653   17.115   1.00  55.62      6
ATOM   8347   OD1   ASN C 632        42.019   87.403   16.312   1.00  51.87      8
ATOM   8348   ND2   ASN C 632        40.084   88.395   16.812   1.00  57.62      7
ATOM   8349   C     ASN C 632        41.287   85.055   19.865   1.00  69.32      6
ATOM   8350   O     ASN C 632        42.328   84.418   19.982   1.00  70.85      8
ATOM   8351   N     GLN C 633        40.461   85.330   20.849   1.00  37.41      7
ATOM   8352   CA    GLN C 633        40.687   84.815   22.193   1.00  38.28      6
ATOM   8353   CB    GLN C 633        40.022   85.718   23.232   1.00166.95      6
ATOM   8354   CG    GLN C 633        39.552   87.056   22.683   1.00169.97      6
ATOM   8355   CD    GLN C 633        40.598   87.729   21.818   1.00172.13      6
ATOM   8356   OE1   GLN C 633        40.302   88.683   21.097   1.00172.88      8
ATOM   8357   NE2   GLN C 633        41.881   87.397   21.731   1.00174.33      7
ATOM   8358   C     GLN C 633        40.177   83.384   22.327   1.00  38.17      6
ATOM   8359   O     GLN C 633        40.321   82.752   23.334   1.00  39.26      8
ATOM   8360   N     GLY C 634        39.583   82.897   21.232   1.00  74.61      7
ATOM   8361   CA    GLY C 634        39.065   81.542   21.268   1.00  74.34      6
ATOM   8362   C     GLY C 634        37.733   81.524   21.979   1.00  74.02      6
ATOM   8363   O     GLY C 634        37.279   80.497   22.474   1.00  74.35      8
ATOM   8364   N     THR C 635        37.107   82.691   22.020   1.00  78.24      7
ATOM   8365   CA    THR C 635        35.822   82.864   22.664   1.00  78.54      6
ATOM   8366   CB    THR C 635        35.444   84.367   22.724   1.00104.98      6
ATOM   8367   OG1   THR C 635        35.430   84.788   24.091   1.00107.03      8
ATOM   8368   CG2   THR C 635        34.080   84.636   22.093   1.00105.64      6
ATOM   8369   C     THR C 635        34.706   82.069   22.005   1.00  78.33      6
ATOM   8370   O     THR C 635        34.102   81.231   22.663   1.00  80.40      8
ATOM   8371   N     ALA C 636        34.443   82.320   20.721   1.00  25.53      7
ATOM   8372   CA    ALA C 636        33.374   81.644   19.986   1.00  23.68      6
ATOM   8373   CB    ALA C 636        33.003   80.308   20.642   1.00  52.56      6
ATOM   8374   C     ALA C 636        32.129   82.514   19.886   1.00  23.17      6
ATOM   8375   O     ALA C 636        31.054   82.152   20.367   1.00  21.83      8
ATOM   8376   N     PHE C 637        32.274   83.667   19.254   1.00  20.92      7
ATOM   8377   CA    PHE C 637        31.150   84.576   19.078   1.00  20.85      6
ATOM   8378   CB    PHE C 637        31.671   85.973   18.703   1.00  76.68      6
ATOM   8379   CG    PHE C 637        31.455   86.331   17.268   1.00  76.26      6
ATOM   8380   CD1   PHE C 637        30.307   86.993   16.877   1.00  76.05      6
ATOM   8381   CD2   PHE C 637        32.365   85.950   16.298   1.00  76.17      6
ATOM   8382   CE1   PHE C 637        30.065   87.268   15.541   1.00  74.70      6
ATOM   8383   CE2   PHE C 637        32.128   86.221   14.963   1.00  75.81      6
ATOM   8384   CZ    PHE C 637        30.974   86.880   14.586   1.00  74.99      6
ATOM   8385   C     PHE C 637        30.256   84.026   17.964   1.00  20.74      6
ATOM   8386   O     PHE C 637        30.760   83.636   16.902   1.00  19.02      8
ATOM   8387   N     ALA C 638        28.944   83.994   18.223   1.00  75.28      7
ATOM   8388   CA    ALA C 638        27.937   83.501   17.267   1.00  77.77      6
ATOM   8389   CB    ALA C 638        27.460   82.101   17.667   1.00  78.00      6
ATOM   8390   C     ALA C 638        26.736   84.452   17.159   1.00  78.88      6
ATOM   8391   O     ALA C 638        26.675   85.460   17.868   1.00  78.96      8
```

150

```
ATOM    8392  N    GLN C1639     25.776  84.124  16.291  1.00  42.30      7
ATOM    8393  CA   GLN C1639     24.609  84.988  16.082  1.00  44.59      6
ATOM    8394  CB   GLN C1639     24.843  85.849  14.841  1.00  96.59      6
ATOM    8395  CG   GLN C1639     25.848  86.957  15.050  1.00  99.50      6
ATOM    8396  CD   GLN C1639     26.278  87.593  13.753  1.00 102.01      6
ATOM    8397  OE1  GLN C1639     25.450  87.942  12.920  1.00 105.55      8
ATOM    8398  NE2  GLN C1639     27.582  87.757  13.576  1.00 102.38      7
ATOM    8399  C    GLN C1639     23.229  84.326  15.969  1.00  45.30      6
ATOM    8400  O    GLN C1639     22.943  83.634  15.003  1.00  44.35    - 8
ATOM    8401  N    ARG C 640     22.373  84.580  16.956  1.00  59.63      7
ATOM    8402  CA   ARG C 640     21.009  84.051  16.990  1.00  61.89      6
ATOM    8403  CB   ARG C 640     20.521  83.936  18.437  1.00 153.83      6
ATOM    8404  CG   ARG C 640     19.029  83.679  18.568  1.00 156.43      6
ATOM    8405  CD   ARG C 640     18.627  83.400  20.003  1.00 158.29      6
ATOM    8406  NE   ARG C 640     17.216  83.041  20.101  1.00 160.47      7
ATOM    8407  CZ   ARG C 640     16.638  82.066  19.403  1.00 161.22      6
ATOM    8408  NH1  ARG C 640     17.347  81.342  18.545  1.00 161.40      7
ATOM    8409  NH2  ARG C 640     15.345  81.811  19.563  1.00 161.77      7
ATOM    8410  C    ARG C 640     20.085  84.987  16.216  1.00  63.50      6
ATOM    8411  O    ARG C 640     20.331  86.186  16.144  1.00  63.90      8
ATOM    8412  N    PRO C 641     19.006  84.450  15.629  1.00  62.03      7
ATOM    8413  CD   PRO C 641     18.787  83.012  15.379  1.00  46.62      6
ATOM    8414  CA   PRO C 641     18.054  85.250  14.855  1.00  63.40      6
ATOM    8415  CB   PRO C 641     17.718  84.318  13.716  1.00  47.20      6
ATOM    8416  CG   PRO C 641     17.567  83.015  14.462  1.00  46.99      6
ATOM    8417  C    PRO C 641     16.802  85.628  15.643  1.00  65.41      6
ATOM    8418  O    PRO C 641     16.645  85.220  16.797  1.00  65.47      8
ATOM    8419  N    ARG C 642     15.913  86.392  15.002  1.00  70.26      7
ATOM    8420  CA   ARG C 642     14.645  86.816  15.610  1.00  72.74      6
ATOM    8421  CB   ARG C 642     14.877  87.954  16.618  1.00 116.38      6
ATOM    8422  CG   ARG C 642     13.580  88.464  17.257  1.00 117.46      6
ATOM    8423  CD   ARG C 642     13.809  89.516  18.344  1.00 118.32      6
ATOM    8424  NE   ARG C 642     12.544  89.986  18.920  1.00 118.81      7
ATOM    8425  CZ   ARG C 642     12.436  90.914  19.873  1.00 118.86      6
ATOM    8426  NH1  ARG C 642     13.519  91.493  20.382  1.00 117.93      7
ATOM    8427  NH2  ARG C 642     11.235  91.271  20.315  1.00 118.51      7
ATOM    8428  C    ARG C 642     13.540  87.254  14.632  1.00  73.67      6
ATOM    8429  O    ARG C 642     13.766  88.075  13.738  1.00  73.21      8
ATOM    8430  N    VAL C 643     12.351  86.680  14.819  1.00  54.77      7
ATOM    8431  CA   VAL C 643     11.147  87.009  14.044  1.00  57.83      6
ATOM    8432  CB   VAL C 643     11.115  88.525  13.688  1.00 183.07      6
ATOM    8433  CG1  VAL C 643      9.861  88.856  12.896  1.00 184.54      6
ATOM    8434  CG2  VAL C 643     11.170  89.362  14.958  1.00 183.92      6
ATOM    8435  C    VAL C 643     10.852  86.219  12.774  1.00  58.95      6
ATOM    8436  O    VAL C 643     11.675  86.159  11.871  1.00  59.02      8
ATOM    8437  N    ARG C 644      9.652  85.649  12.709  1.00  69.80      7
ATOM    8438  CA   ARG C 644      9.210  84.865  11.557  1.00  72.46      6
ATOM    8439  CB   ARG C 644      8.083  83.917  11.952  1.00 202.67      6
ATOM    8440  CG   ARG C 644      8.467  82.802  12.888  1.00 204.91      6
ATOM    8441  CD   ARG C 644      7.279  81.877  13.050  1.00 206.63      6
ATOM    8442  NE   ARG C 644      7.601  80.669  13.796  1.00 208.87      7
ATOM    8443  CZ   ARG C 644      6.779  79.632  13.909  1.00 208.87      6
ATOM    8444  NH1  ARG C 644      5.593  79.668  13.322  1.00 208.87      7
ATOM    8445  NH2  ARG C 644      7.139  78.561  14.598  1.00 208.87      7
ATOM    8446  C    ARG C 644      8.692  85.742  10.422  1.00  73.10      6
ATOM    8447  O    ARG C 644      9.176  85.667   9.287  1.00  72.87      8
```

151

```
ATOM   8448  N   VAL C 645       7.683  86.552  10.734  1.00127.85     7
ATOM   8449  CA  VAL C 645       7.063  87.444   9.759  1.00128.53     6
ATOM   8450  CB  VAL C 645       5.737  86.859   9.258  1.00109.79     6
ATOM   8451  CG1 VAL C 645       5.129  87.777   8.208  1.00109.80     6
ATOM   8452  CG2 VAL C 645       5.966  85.463   8.703  1.00109.41     6
ATOM   8453  C   VAL C 645       6.779  88.813  10.365  1.00128.82     6
ATOM   8454  O   VAL C 645       5.784  88.988  11.072  1.00129.18     8
ATOM   8455  N   GLY C 646       7.645  89.782  10.078  1.00 94.58     7
ATOM   8456  CA  GLY C 646       7.461  91.115  10.630  1.00 94.93     6
ATOM   8457  C   GLY C 646       7.932  92.247   9.738  1.00 95.18     6
ATOM   8458  O   GLY C 646       8.204  92.038   8.553  1.00 95.22     8
ATOM   8459  N   ALA C 647       8.040  93.445  10.311  1.00 89.09     7
ATOM   8460  CA  ALA C 647       8.461  94.615   9.554  1.00 88.98     6
ATOM   8461  CB  ALA C 647       7.434  95.716   9.711  1.00122.12     6
ATOM   8462  C   ALA C 647       9.851  95.141   9.906  1.00 89.28     6
ATOM   8463  O   ALA C 647      10.805  94.377  10.027  1.00 89.89     8
ATOM   8464  N   ARG C 648       9.969  96.453  10.066  1.00 89.53     7
ATOM   8465  CA  ARG C 648      11.267  97.029  10.359  1.00 90.09     6
ATOM   8466  CB  ARG C 648      11.365  98.462   9.853  1.00 95.01     6
ATOM   8467  CG  ARG C 648      12.733  99.008  10.169  1.00 95.96     6
ATOM   8468  CD  ARG C 648      13.113 100.253   9.425  1.00 95.74     6
ATOM   8469  NE  ARG C 648      14.569 100.324   9.347  1.00 96.24     7
ATOM   8470  CZ  ARG C 648      15.381 100.194  10.391  1.00 97.70     6
ATOM   8471  NH1 ARG C 648      14.885  99.992  11.603  1.00 98.66     7
ATOM   8472  NH2 ARG C 648      16.692 100.245  10.222  1.00 98.84     7
ATOM   8473  C   ARG C 648      11.747  97.013  11.798  1.00 90.53     6
ATOM   8474  O   ARG C 648      12.850  96.549  12.076  1.00 90.84     8
ATOM   8475  N   ALA C 649      10.950  97.535  12.720  1.00185.27     7
ATOM   8476  CA  ALA C 649      11.401  97.552  14.099  1.00185.25     6
ATOM   8477  CB  ALA C 649      12.353  98.725  14.309  1.00 92.17     6
ATOM   8478  C   ALA C 649      10.292  97.598  15.132  1.00185.02     6
ATOM   8479  O   ALA C 649       9.108  97.674  14.805  1.00185.90     8
ATOM   8480  N   ALA C 650      10.714  97.542  16.389  1.00156.11     7
ATOM   8481  CA  ALA C 650       9.834  97.581  17.549  1.00155.18     6
ATOM   8482  CB  ALA C 650       9.242  96.201  17.806  1.00159.77     6
ATOM   8483  C   ALA C 650      10.744  97.991  18.699  1.00154.07     6
ATOM   8484  O   ALA C 650      11.183  97.151  19.484  1.00153.68     8
ATOM   8485  N   ALA C 651      11.034  99.285  18.784  1.00198.58     7
ATOM   8486  CA  ALA C 651      11.928  99.803  19.812  1.00197.30     6
ATOM   8487  CB  ALA C 651      11.470  99.352  21.193  1.00113.54     6
ATOM   8488  C   ALA C 651      13.319  99.255  19.501  1.00195.92     6
ATOM   8489  O   ALA C 651      14.216  99.263  20.346  1.00197.13     8
ATOM   8490  N   GLY C 652      13.476  98.778  18.269  1.00157.04     7
ATOM   8491  CA  GLY C 652      14.741  98.227  17.818  1.00152.46     6
ATOM   8492  C   GLY C 652      14.562  97.304  16.623  1.00149.73     6
ATOM   8493  O   GLY C 652      13.796  96.341  16.693  1.00150.26     8
ATOM   8494  N   ASP C 653      15.254  97.600  15.523  1.00 75.23     7
ATOM   8495  CA  ASP C 653      15.172  96.778  14.315  1.00 70.01     6
ATOM   8496  CB  ASP C 653      15.286  97.659  13.068  1.00 49.97     6
ATOM   8497  CG  ASP C 653      16.723  97.983  12.711  1.00 49.50     6
ATOM   8498  OD1 ASP C 653      17.467  98.489  13.582  1.00 49.55     8
ATOM   8499  OD2 ASP C 653      17.109  97.725  11.551  1.00 49.99     8
ATOM   8500  C   ASP C 653      16.320  95.763  14.359  1.00 66.17     6
ATOM   8501  O   ASP C 653      17.014  95.529  13.366  1.00 64.12     8
ATOM   8502  N   LEU C 654      16.512  95.170  15.533  1.00 78.22     7
ATOM   8503  CA  LEU C 654      17.566  94.195  15.721  1.00 75.71     6
```

152

```
ATOM   8504  CB   LEU C 654      17.319  93.346  16.968  1.00 44.26      6
ATOM   8505  CG   LEU C 654      18.210  92.105  17.131  1.00 43.81      6
ATOM   8506  CD1  LEU C 654      19.657  92.490  16.975  1.00 43.96      6
ATOM   8507  CD2  LEU C 654      17.978  91.472  18.485  1.00 43.72      6
ATOM   8508  C    LEU C 654      17.693  93.285  14.524  1.00 73.51      6
ATOM   8509  O    LEU C 654      18.497  93.545  13.630  1.00 74.58      8
ATOM   8510  N    LEU C 655      16.890  92.229  14.494  1.00 56.02      7
ATOM   8511  CA   LEU C 655      16.978  91.285  13.399  1.00 52.20      6
ATOM   8512  CB   LEU C 655      17.115  92.045  12.060  1.00 25.83      6
ATOM   8513  CG   LEU C 655      17.371  91.406  10.685  1.00 22.71      6
ATOM   8514  CD1  LEU C 655      16.407  91.979   9.681  1.00 22.40      6
ATOM   8515  CD2  LEU C 655      18.773  91.694  10.207  1.00 19.92      6
ATOM   8516  C    LEU C 655      18.233  90.473  13.713  1.00 51.40      6
ATOM   8517  O    LEU C 655      19.317  90.811  13.256  1.00 52.89      8
ATOM   8518  N    ALA C 656      18.084  89.435  14.538  1.00 38.13      7
ATOM   8519  CA   ALA C 656      19.194  88.547  14.917  1.00 36.10      6
ATOM   8520  CB   ALA C 656      19.857  87.985  13.654  1.00122.83      6
ATOM   8521  C    ALA C 656      20.266  89.151  15.842  1.00 34.39      6
ATOM   8522  O    ALA C 656      20.908  90.151  15.507  1.00 33.57      8
ATOM   8523  N    ASP C 657      20.466  88.518  16.998  1.00 38.96      7
ATOM   8524  CA   ASP C 657      21.441  88.981  17.980  1.00 37.30      6
ATOM   8525  CB   ASP C 657      21.193  88.353  19.355  1.00 27.97      6
ATOM   8526  CG   ASP C 657      20.259  89.188  20.226  1.00 27.28      6
ATOM   8527  OD1  ASP C 657      20.411  90.432  20.260  1.00 24.24      8
ATOM   8528  OD2  ASP C 657      19.379  88.596  20.889  1.00 27.26      8
ATOM   8529  C    ASP C 657      22.881  88.732  17.602  1.00 37.25      6
ATOM   8530  O    ASP C 657      23.247  88.787  16.439  1.00 37.78      8
ATOM   8531  N    GLY C 658      23.701  88.475  18.608  1.00 64.11      7
ATOM   8532  CA   GLY C 658      25.104  88.240  18.365  1.00 65.39      6
ATOM   8533  C    GLY C 658      25.714  87.456  19.502  1.00 65.46      6
ATOM   8534  O    GLY C 658      25.029  86.666  20.150  1.00 65.70      8
ATOM   8535  N    PRO C 659      27.007  87.663  19.781  1.00 30.43      7
ATOM   8536  CD   PRO C 659      27.972  88.389  18.941  1.00 54.09      6
ATOM   8537  CA   PRO C 659      27.702  86.958  20.853  1.00 30.48      6
ATOM   8538  CB   PRO C 659      29.132  86.917  20.335  1.00 52.79      6
ATOM   8539  CG   PRO C 659      29.266  88.245  19.723  1.00 54.10      6
ATOM   8540  C    PRO C 659      27.607  87.532  22.276  1.00 31.00      6
ATOM   8541  O    PRO C 659      28.504  87.335  23.090  1.00 29.62      8
ATOM   8542  N    ALA C 660      26.536  88.230  22.602  1.00 77.18      7
ATOM   8543  CA   ALA C 660      26.448  88.742  23.954  1.00 78.37      6
ATOM   8544  CB   ALA C 660      27.750  89.379  24.366  1.00 13.87      6
ATOM   8545  C    ALA C 660      25.331  89.730  24.102  1.00 78.71      6
ATOM   8546  O    ALA C 660      25.219  90.387  25.126  1.00 79.59      8
ATOM   8547  N    SER C 661      24.504  89.849  23.079  1.00 42.03      7
ATOM   8548  CA   SER C 661      23.391  90.763  23.172  1.00 42.57      6
ATOM   8549  CB   SER C 661      23.083  91.354  21.808  1.00 54.64      6
ATOM   8550  OG   SER C 661      22.727  90.321  20.919  1.00 57.11      8
ATOM   8551  C    SER C 661      22.188  89.979  23.675  1.00 41.98      6
ATOM   8552  O    SER C 661      21.934  88.861  23.231  1.00 41.17      8
ATOM   8553  N    GLU C 662      21.477  90.557  24.633  1.00 66.98      7
ATOM   8554  CA   GLU C 662      20.268  89.950  25.182  1.00 66.51      6
ATOM   8555  CB   GLU C 662      20.123  90.309  26.672  1.00 53.91      6
ATOM   8556  CG   GLU C 662      18.766  90.005  27.356  1.00 53.80      6
ATOM   8557  CD   GLU C 662      18.369  88.542  27.318  1.00 53.96      6
ATOM   8558  OE1  GLU C 662      17.677  88.087  28.258  1.00 54.83      8
ATOM   8559  OE2  GLU C 662      18.733  87.852  26.343  1.00 53.54      8
```

153

```
ATOM   8560   C    GLU C 662    19.181  90.611  24.355  1.00 65.72    6
ATOM   8561   O    GLU C 662    18.189  91.112  24.875  1.00 65.71    8
ATOM   8562   N    GLU C 663    19.409  90.616  23.051  1.00 39.28    7
ATOM   8563   CA   GLU C 663    18.510  91.226  22.100  1.00 38.54    6
ATOM   8564   CB   GLU C 663    17.065  91.104  22.557  1.00 54.30    6
ATOM   8565   CG   GLU C 663    16.650  89.694  22.870  1.00 55.06    6
ATOM   8566   CD   GLU C 663    15.207  89.626  23.282  1.00 54.67    6
ATOM   8567   OE1  GLU C 663    14.359  90.093  22.495  1.00 55.92    8
ATOM   8568   OE2  GLU C 663    14.920  89.118  24.387  1.00 53.70    8
ATOM   8569   C    GLU C 663    18.891  92.686  21.983  1.00 38.12    6
ATOM   8570   O    GLU C 663    18.158  93.564  22.431  1.00 38.14    8
ATOM   8571   N    GLY C 664    20.051  92.939  21.385  1.00 75.46    7
ATOM   8572   CA   GLY C 664    20.519  94.304  21.209  1.00 74.14    6
ATOM   8573   C    GLY C 664    21.054  94.929  22.487  1.00 73.09    6
ATOM   8574   O    GLY C 664    21.554  96.057  22.474  1.00 73.85    8
ATOM   8575   N    PHE C 665    20.950  94.195  23.591  1.00 37.20    7
ATOM   8576   CA   PHE C 665    21.421  94.676  24.883  1.00 34.13    6
ATOM   8577   CB   PHE C 665    20.357  94.427  25.940  1.00 42.35    6
ATOM   8578   CG   PHE C 665    19.212  95.380  25.881  1.00 43.12    6
ATOM   8579   CD1  PHE C 665    17.948  94.980  26.299  1.00 44.68    6
ATOM   8580   CD2  PHE C 665    19.400  96.688  25.427  1.00 42.37    6
ATOM   8581   CE1  PHE C 665    16.882  95.867  26.266  1.00 45.21    6
ATOM   8582   CE2  PHE C 665    18.352  97.585  25.388  1.00 41.86    6
ATOM   8583   CZ   PHE C 665    17.085  97.184  25.805  1.00 44.49    6
ATOM   8584   C    PHE C 665    22.685  93.970  25.301  1.00 31.94    6
ATOM   8585   O    PHE C 665    22.614  92.854  25.796  1.00 31.91    8
ATOM   8586   N    LEU C 666    23.837  94.604  25.108  1.00 26.18    7
ATOM   8587   CA   LEU C 666    25.097  93.970  25.491  1.00 25.71    6
ATOM   8588   CB   LEU C 666    26.209  94.998  25.727  1.00 31.13    6
ATOM   8589   CG   LEU C 666    27.517  94.552  26.401  1.00 29.22    6
ATOM   8590   CD1  LEU C 666    28.022  93.288  25.774  1.00 29.99    6
ATOM   8591   CD2  LEU C 666    28.543  95.671  26.276  1.00 27.86    6
ATOM   8592   C    LEU C 666    24.825  93.259  26.781  1.00 24.91    6
ATOM   8593   O    LEU C 666    24.372  93.879  27.742  1.00 23.84    8
ATOM   8594   N    ALA C 667    25.085  91.955  26.775  1.00 60.95    7
ATOM   8595   CA   ALA C 667    24.881  91.069  27.916  1.00 60.19    6
ATOM   8596   CB   ALA C 667    23.666  90.197  27.670  1.00 13.87    6
ATOM   8597   C    ALA C 667    26.131  90.212  28.047  1.00 59.25    6
ATOM   8598   O    ALA C 667    26.208  89.109  27.512  1.00 59.69    8
ATOM   8599   N    LEU C 668    27.114  90.739  28.758  1.00 28.60    7
ATOM   8600   CA   LEU C 668    28.371  90.056  28.944  1.00 25.65    6
ATOM   8601   CB   LEU C 668    29.358  91.001  29.571  1.00 13.87    6
ATOM   8602   CG   LEU C 668    29.496  92.156  28.596  1.00 13.87    6
ATOM   8603   CD1  LEU C 668    30.270  93.297  29.228  1.00 13.87    6
ATOM   8604   CD2  LEU C 668    30.164  91.636  27.337  1.00 13.87    6
ATOM   8605   C    LEU C 668    28.238  88.824  29.780  1.00 26.32    6
ATOM   8606   O    LEU C 668    28.695  87.762  29.392  1.00 26.84    8
ATOM   8607   N    GLY C 669    27.614  88.951  30.937  1.00 22.74    7
ATOM   8608   CA   GLY C 669    27.442  87.785  31.780  1.00 23.73    6
ATOM   8609   C    GLY C 669    25.982  87.575  32.103  1.00 23.58    6
ATOM   8610   O    GLY C 669    25.115  88.218  31.525  1.00 21.58    8
ATOM   8611   N    GLN C 670    25.703  86.669  33.024  1.00 20.32    7
ATOM   8612   CA   GLN C 670    24.336  86.407  33.418  1.00 22.32    6
ATOM   8613   CB   GLN C 670    24.067  84.927  33.456  1.00 46.85    6
ATOM   8614   CG   GLN C 670    24.178  84.247  32.149  1.00 49.88    6
ATOM   8615   CD   GLN C 670    23.795  82.812  32.291  1.00 51.68    6
```

```
ATOM   8616  OE1 GLN C 670      24.560  82.000  32.824  1.00 52.07       8
ATOM   8617  NE2 GLN C 670      22.587  82.483  31.850  1.00 53.08       7
ATOM   8618  C   GLN C 670      24.157  86.928  34.810  1.00 22.85       6
ATOM   8619  O   GLN C 670      25.033  86.728  35.646  1.00 23.26       8
ATOM   8620  N   ASN C 671      23.028  87.587  35.062  1.00 32.84       7
ATOM   8621  CA  ASN C 671      22.739  88.117  36.394  1.00 33.83       6
ATOM   8622  CB  ASN C 671      21.971  89.454  36.329  1.00 36.11       6
ATOM   8623  CG  ASN C 671      20.866  89.458  35.293  1.00 37.42       6
ATOM   8624  OD1 ASN C 671      20.053  88.538  35.225  1.00 38.52       8
ATOM   8625  ND2 ASN C 671      20.823  90.512  34.489  1.00 36.92       7
ATOM   8626  C   ASN C 671      21.959  87.093  37.197  1.00 32.30       6
ATOM   8627  O   ASN C 671      21.011  86.479  36.713  1.00 30.24       8
ATOM   8628  N   VAL C 672      22.377  86.897  38.435  1.00 40.81       7
ATOM   8629  CA  VAL C 672      21.708  85.924  39.253  1.00 40.63       6
ATOM   8630  CB  VAL C 672      22.535  84.636  39.314  1.00 34.74       6
ATOM   8631  CG1 VAL C 672      23.565  84.694  40.436  1.00 34.96       6
ATOM   8632  CG2 VAL C 672      21.609  83.474  39.443  1.00 35.10       6
ATOM   8633  C   VAL C 672      21.419  86.452  40.646  1.00 40.17       6
ATOM   8634  O   VAL C 672      21.634  87.631  40.928  1.00 41.23       8
ATOM   8635  N   LEU C 673      20.924  85.579  41.514  1.00 22.87       7
ATOM   8636  CA  LEU C 673      20.576  85.979  42.868  1.00 22.05       6
ATOM   8637  CB  LEU C 673      19.217  85.357  43.238  1.00 34.54       6
ATOM   8638  CG  LEU C 673      18.323  85.858  44.377  1.00 32.29       6
ATOM   8639  CD1 LEU C 673      16.967  86.182  43.789  1.00 29.25       6
ATOM   8640  CD2 LEU C 673      18.189  84.800  45.481  1.00 32.17       6
ATOM   8641  C   LEU C 673      21.660  85.572  43.865  1.00 21.61       6
ATOM   8642  O   LEU C 673      22.020  84.399  43.978  1.00 21.08       8
ATOM   8643  N   VAL C 674      22.180  86.568  44.572  1.00 13.87       7
ATOM   8644  CA  VAL C 674      23.220  86.383  45.572  1.00 13.87       6
ATOM   8645  CB  VAL C 674      24.458  87.262  45.262  1.00 30.66       6
ATOM   8646  CG1 VAL C 674      24.017  88.640  44.823  1.00 33.54       6
ATOM   8647  CG2 VAL C 674      25.342  87.393  46.491  1.00 30.32       6
ATOM   8648  C   VAL C 674      22.686  86.782  46.925  1.00 13.87       6
ATOM   8649  O   VAL C 674      21.602  87.325  47.043  1.00 13.87       8
ATOM   8650  N   ALA C 675      23.455  86.498  47.954  1.00 21.92       7
ATOM   8651  CA  ALA C 675      23.078  86.855  49.301  1.00 22.72       6
ATOM   8652  CB  ALA C 675      22.341  85.711  49.971  1.00135.95       6
ATOM   8653  C   ALA C 675      24.433  87.040  49.915  1.00 22.35       6
ATOM   8654  O   ALA C 675      25.244  86.122  49.885  1.00 23.65       8
ATOM   8655  N   ILE C 676      24.699  88.233  50.433  1.00 18.20       7
ATOM   8656  CA  ILE C 676      25.986  88.502  51.025  1.00 16.01       6
ATOM   8657  CB  ILE C 676      26.191  89.988  51.264  1.00 13.87       6
ATOM   8658  CG2 ILE C 676      27.531  90.209  51.895  1.00 13.87       6
ATOM   8659  CG1 ILE C 676      26.176  90.749  49.937  1.00 13.87       6
ATOM   8660  CD1 ILE C 676      24.804  91.136  49.467  1.00 13.87       6
ATOM   8661  C   ILE C 676      26.031  87.764  52.330  1.00 15.94       6
ATOM   8662  O   ILE C 676      24.997  87.431  52.860  1.00 16.67       8
ATOM   8663  N   MET C 677      27.232  87.475  52.812  1.00 23.08       7
ATOM   8664  CA  MET C 677      27.442  86.777  54.073  1.00 23.84       6
ATOM   8665  CB  MET C 677      26.183  86.042  54.536  1.00 21.85       6
ATOM   8666  CG  MET C 677      25.858  84.812  53.737  1.00 20.37       6
ATOM   8667  SD  MET C 677      24.471  83.914  54.420  1.00 21.77      16
ATOM   8668  CE  MET C 677      25.130  83.561  56.108  1.00 20.08       6
ATOM   8669  C   MET C 677      28.548  85.762  53.918  1.00 26.58       6
ATOM   8670  O   MET C 677      28.632  85.079  52.905  1.00 28.10       8
ATOM   8671  N   PRO C 678      29.425  85.650  54.918  1.00 51.11       7
```

ATOM	8672	CD	PRO	C	678	29.440	86.280	56.251	1.00	13.87	6
ATOM	8673	CA	PRO	C	678	30.496	84.658	54.772	1.00	53.91	6
ATOM	8674	CB	PRO	C	678	31.322	84.861	56.035	1.00	14.90	6
ATOM	8675	CG	PRO	C	678	30.264	85.309	57.055	1.00	13.87	6
ATOM	8676	C	PRO	C	678	29.846	83.287	54.740	1.00	56.46	6
ATOM	8677	O	PRO	C	678	28.678	83.171	55.113	1.00	59.26	8
ATOM	8678	N	PHE	C	679	30.565	82.260	54.288	1.00	30.38	7
ATOM	8679	CA	PHE	C	679	29.992	80.909	54.297	1.00	29.12	6
ATOM	8680	CB	PHE	C	679	29.492	80.494	52.920	1.00	41.93	6
ATOM	8681	CG	PHE	C	679	28.438	79.436	52.977	1.00	43.64	6
ATOM	8682	CD1	PHE	C	679	27.099	79.782	53.094	1.00	44.45	6
ATOM	8683	CD2	PHE	C	679	28.789	78.092	52.995	1.00	44.04	6
ATOM	8684	CE1	PHE	C	679	26.130	78.807	53.233	1.00	44.58	6
ATOM	8685	CE2	PHE	C	679	27.827	77.107	53.133	1.00	42.72	6
ATOM	8686	CZ	PHE	C	679	26.494	77.462	53.254	1.00	43.82	6
ATOM	8687	C	PHE	C	679	30.986	79.868	54.794	1.00	28.07	6
ATOM	8688	O	PHE	C	679	31.831	79.403	54.042	1.00	28.71	8
ATOM	8689	N	ASP	C	680	30.865	79.499	56.064	1.00	26.45	7
ATOM	8690	CA	ASP	C	680	31.767	78.537	56.698	1.00	27.76	6
ATOM	8691	CB	ASP	C	680	31.149	77.129	56.716	1.00	62.51	6
ATOM	8692	CG	ASP	C	680	30.244	76.894	57.930	1.00	66.52	6
ATOM	8693	OD1	ASP	C	680	29.046	77.257	57.886	1.00	69.84	8
ATOM	8694	OD2	ASP	C	680	30.738	76.349	58.940	1.00	67.51	8
ATOM	8695	C	ASP	C	680	33.158	78.489	56.073	1.00	26.14	6
ATOM	8696	O	ASP	C	680	33.789	77.442	56.040	1.00	25.67	8
ATOM	8697	N	GLY	C	681	33.630	79.626	55.577	1.00	47.60	7
ATOM	8698	CA	GLY	C	681	34.952	79.673	54.986	1.00	46.00	6
ATOM	8699	C	GLY	C	681	35.135	79.423	53.501	1.00	44.37	6
ATOM	8700	O	GLY	C	681	36.270	79.390	53.012	1.00	44.60	8
ATOM	8701	N	TYR	C	682	34.054	79.251	52.757	1.00	27.30	7
ATOM	8702	CA	TYR	C	682	34.228	79.007	51.341	1.00	24.29	6
ATOM	8703	CB	TYR	C	682	33.100	78.138	50.812	1.00	20.76	6
ATOM	8704	CG	TYR	C	682	33.253	76.754	51.382	1.00	18.89	6
ATOM	8705	CD1	TYR	C	682	34.437	76.051	51.207	1.00	19.01	6
ATOM	8706	CE1	TYR	C	682	34.647	74.844	51.820	1.00	18.22	6
ATOM	8707	CD2	TYR	C	682	32.274	76.193	52.188	1.00	19.31	6
ATOM	8708	CE2	TYR	C	682	32.478	74.975	52.804	1.00	18.87	6
ATOM	8709	CZ	TYR	C	682	33.669	74.306	52.614	1.00	18.22	6
ATOM	8710	OH	TYR	C	682	33.881	73.082	53.198	1.00	18.76	8
ATOM	8711	C	TYR	C	682	34.397	80.260	50.546	1.00	23.01	6
ATOM	8712	O	TYR	C	682	34.791	80.205	49.395	1.00	24.02	8
ATOM	8713	N	ASN	C	683	34.103	81.394	51.169	1.00	13.87	7
ATOM	8714	CA	ASN	C	683	34.280	82.686	50.528	1.00	13.87	6
ATOM	8715	CB	ASN	C	683	32.940	83.456	50.347	1.00	18.87	6
ATOM	8716	CG	ASN	C	683	31.927	83.243	51.489	1.00	18.87	6
ATOM	8717	OD1	ASN	C	683	32.142	82.466	52.412	1.00	19.81	8
ATOM	8718	ND2	ASN	C	683	30.805	83.949	51.405	1.00	18.87	7
ATOM	8719	C	ASN	C	683	35.278	83.448	51.385	1.00	14.52	6
ATOM	8720	O	ASN	C	683	34.929	84.346	52.139	1.00	16.41	8
ATOM	8721	N	PHE	C	684	36.535	83.036	51.282	1.00	13.87	7
ATOM	8722	CA	PHE	C	684	37.633	83.645	52.024	1.00	13.87	6
ATOM	8723	CB	PHE	C	684	38.592	82.577	52.510	1.00	19.24	6
ATOM	8724	CG	PHE	C	684	39.629	83.067	53.478	1.00	18.28	6
ATOM	8725	CD1	PHE	C	684	39.368	83.077	54.846	1.00	17.56	6
ATOM	8726	CD2	PHE	C	684	40.898	83.407	53.035	1.00	17.56	6
ATOM	8727	CE1	PHE	C	684	40.355	83.402	55.755	1.00	17.56	6

```
ATOM   8728  CE2 PHE C 684      41.888  83.733  53.937  1.00 17.92      6
ATOM   8729  CZ  PHE C 684      41.618  83.726  55.303  1.00 17.56      6
ATOM   8730  C   PHE C 684      38.375  84.586  51.105  1.00 13.87      6
ATOM   8731  O   PHE C 684      38.571  84.314  49.931  1.00 13.87      8
ATOM   8732  N   GLU C 685      38.801  85.701  51.657  1.00 69.69      7
ATOM   8733  CA  GLU C 685      39.490  86.678  50.855  1.00 72.85      6
ATOM   8734  CB  GLU C 685      40.741  86.065  50.227  1.00 47.62      6
ATOM   8735  CG  GLU C 685      41.888  85.969  51.222  1.00 48.90      6
ATOM   8736  CD  GLU C 685      42.390  87.340  51.685  1.00 50.71      6
ATOM   8737  OE1 GLU C 685      41.562  88.250  51.920  1.00 50.93      8
ATOM   8738  OE2 GLU C 685      43.623  87.508  51.830  1.00 52.91      8
ATOM   8739  C   GLU C 685      38.545  87.217  49.794  1.00 74.22      6
ATOM   8740  O   GLU C 685      37.999  88.311  49.957  1.00 76.00      8
ATOM   8741  N   ASP C 686      38.310  86.462  48.728  1.00 55.73      7
ATOM   8742  CA  ASP C 686      37.428  86.974  47.681  1.00 56.10      6
ATOM   8743  CB  ASP C 686      38.239  87.893  46.766  1.00 52.07      6
ATOM   8744  CG  ASP C 686      39.725  87.933  47.142  1.00 52.04      6
ATOM   8745  OD1 ASP C 686      40.357  86.856  47.286  1.00 50.57      8
ATOM   8746  OD2 ASP C 686      40.257  89.052  47.293  1.00 51.95      8
ATOM   8747  C   ASP C 686      36.725  85.893  46.858  1.00 56.69      6
ATOM   8748  O   ASP C 686      35.956  86.199  45.932  1.00 57.76      8
ATOM   8749  N   ALA C 687      36.989  84.635  47.211  1.00 81.74      7
ATOM   8750  CA  ALA C 687      36.405  83.483  46.531  1.00 79.22      6
ATOM   8751  CB  ALA C 687      37.021  82.221  47.071  1.00 13.87      6
ATOM   8752  C   ALA C 687      34.884  83.443  46.680  1.00 77.60      6
ATOM   8753  O   ALA C 687      34.343  83.847  47.709  1.00 77.71      8
ATOM   8754  N   ILE C 688      34.202  82.951  45.648  1.00 32.24      7
ATOM   8755  CA  ILE C 688      32.743  82.882  45.646  1.00 29.34      6
ATOM   8756  CB  ILE C 688      32.141  83.381  44.325  1.00 20.69      6
ATOM   8757  CG2 ILE C 688      30.903  84.139  44.633  1.00 21.41      6
ATOM   8758  CG1 ILE C 688      33.135  84.247  43.528  1.00 20.26      6
ATOM   8759  CD1 ILE C 688      33.379  85.668  44.055  1.00 19.57      6
ATOM   8760  C   ILE C 688      32.247  81.460  45.804  1.00 28.39      6
ATOM   8761  O   ILE C 688      32.988  80.523  45.531  1.00 29.02      8
ATOM   8762  N   VAL C 689      30.993  81.301  46.226  1.00 28.34      7
ATOM   8763  CA  VAL C 689      30.396  79.972  46.380  1.00 26.56      6
ATOM   8764  CB  VAL C 689      29.970  79.721  47.826  1.00 13.87      6
ATOM   8765  CG1 VAL C 689      29.369  78.330  47.957  1.00 13.87      6
ATOM   8766  CG2 VAL C 689      31.178  79.845  48.744  1.00 13.87      6
ATOM   8767  C   VAL C 689      29.193  79.776  45.446  1.00 27.03      6
ATOM   8768  O   VAL C 689      28.212  80.493  45.520  1.00 27.57      8
ATOM   8769  N   ILE C 690      29.279  78.794  44.563  1.00 13.87      7
ATOM   8770  CA  ILE C 690      28.229  78.541  43.595  1.00 13.87      6
ATOM   8771  CB  ILE C 690      28.802  77.930  42.270  1.00 31.31      6
ATOM   8772  CG2 ILE C 690      27.739  77.912  41.192  1.00 33.95      6
ATOM   8773  CG1 ILE C 690      30.008  78.717  41.757  1.00 32.30      6
ATOM   8774  CD1 ILE C 690      29.702  80.126  41.285  1.00 34.94      6
ATOM   8775  C   ILE C 690      27.260  77.523  44.144  1.00 13.87      6
ATOM   8776  O   ILE C 690      27.636  76.695  44.955  1.00 13.87      8
ATOM   8777  N   SER C 691      26.008  77.601  43.707  1.00 16.77      7
ATOM   8778  CA  SER C 691      24.981  76.627  44.072  1.00 17.83      6
ATOM   8779  CB  SER C 691      23.642  77.276  44.352  1.00 58.34      6
ATOM   8780  OG  SER C 691      22.614  76.429  43.841  1.00 60.63      8
ATOM   8781  C   SER C 691      24.816  75.815  42.805  1.00 17.19      6
ATOM   8782  O   SER C 691      24.414  76.347  41.770  1.00 15.71      8
ATOM   8783  N   GLU C 692      25.129  74.534  42.885  1.00 13.87      7
```

157

```
ATOM   8784  CA   GLU C 692      25.048  73.667  41.729  1.00  15.29      6
ATOM   8785  CB   GLU C 692      24.766  72.244  42.184  1.00  40.04      6
ATOM   8786  CG   GLU C 692      24.620  71.239  41.067  1.00  42.87      6
ATOM   8787  CD   GLU C 692      24.552  69.838  41.610  1.00  44.48      6
ATOM   8788  OE1  GLU C 692      23.552  69.515  42.291  1.00  44.52      8
ATOM   8789  OE2  GLU C 692      25.511  69.070  41.376  1.00  44.97      8
ATOM   8790  C    GLU C 692      23.985  74.103  40.733  1.00  17.14      6
ATOM   8791  O    GLU C 692      24.214  74.076  39.521  1.00  15.79      8
ATOM   8792  N    GLU C 693      22.831  74.518  41.256  1.00  14.72      7
ATOM   8793  CA   GLU C 693      21.709  74.923  40.422  1.00  17.95      6
ATOM   8794  CB   GLU C 693      20.794  75.886  41.174  1.00  63.29      6
ATOM   8795  CG   GLU C 693      19.366  75.867  40.666  1.00  67.04      6
ATOM   8796  CD   GLU C 693      18.700  74.534  40.937  1.00  69.46      6
ATOM   8797  OE1  GLU C 693      19.240  73.494  40.511  1.00  70.03      8
ATOM   8798  OE2  GLU C 693      17.638  74.516  41.586  1.00  70.28      8
ATOM   8799  C    GLU C 693      22.221  75.584  39.163  1.00  19.53      6
ATOM   8800  O    GLU C 693      21.937  75.137  38.057  1.00  19.06      8
ATOM   8801  N    LEU C 694      23.000  76.644  39.340  1.00  62.57      7
ATOM   8802  CA   LEU C 694      23.547  77.362  38.206  1.00  65.09      6
ATOM   8803  CB   LEU C 694      24.760  78.181  38.638  1.00  42.25      6
ATOM   8804  CG   LEU C 694      24.343  79.563  39.117  1.00  42.71      6
ATOM   8805  CD1  LEU C 694      25.570  80.411  39.420  1.00  42.10      6
ATOM   8806  CD2  LEU C 694      23.490  80.205  38.027  1.00  41.62      6
ATOM   8807  C    LEU C 694      23.927  76.394  37.108  1.00  66.05      6
ATOM   8808  O    LEU C 694      23.478  76.515  35.966  1.00  67.07      8
ATOM   8809  N    LEU C 695      24.744  75.415  37.462  1.00  16.69      7
ATOM   8810  CA   LEU C 695      25.160  74.434  36.497  1.00  17.08      6
ATOM   8811  CB   LEU C 695      26.129  73.458  37.146  1.00  22.44      6
ATOM   8812  CG   LEU C 695      27.368  74.219  37.611  1.00  21.41      6
ATOM   8813  CD1  LEU C 695      28.391  73.268  38.217  1.00  20.97      6
ATOM   8814  CD2  LEU C 695      27.953  74.960  36.421  1.00  21.28      6
ATOM   8815  C    LEU C 695      23.944  73.710  35.943  1.00  19.27      6
ATOM   8816  O    LEU C 695      23.657  73.802  34.752  1.00  19.69      8
ATOM   8817  N    LYS C 696      23.215  73.008  36.805  1.00  49.24      7
ATOM   8818  CA   LYS C 696      22.035  72.270  36.367  1.00  50.88      6
ATOM   8819  CB   LYS C 696      21.125  71.970  37.552  1.00  68.54      6
ATOM   8820  CG   LYS C 696      21.725  71.037  38.581  1.00  70.86      6
ATOM   8821  CD   LYS C 696      20.687  70.659  39.632  1.00  72.79      6
ATOM   8822  CE   LYS C 696      21.212  69.583  40.572  1.00  74.27      6
ATOM   8823  NZ   LYS C 696      20.177  69.068  41.512  1.00  74.29      7
ATOM   8824  C    LYS C 696      21.244  73.007  35.288  1.00  51.81      6
ATOM   8825  O    LYS C 696      20.695  72.375  34.388  1.00  51.36      8
ATOM   8826  N    ARG C 697      21.194  74.337  35.362  1.00  55.92      7
ATOM   8827  CA   ARG C 697      20.452  75.116  34.369  1.00  57.84      6
ATOM   8828  CB   ARG C 697      19.665  76.260  35.031  1.00  98.96      6
ATOM   8829  CG   ARG C 697      18.404  76.647  34.243  1.00 104.05      6
ATOM   8830  CD   ARG C 697      17.797  77.996  34.653  1.00 107.95      6
ATOM   8831  NE   ARG C 697      16.557  78.280  33.919  1.00 109.57      7
ATOM   8832  CZ   ARG C 697      15.961  79.469  33.870  1.00 108.72      6
ATOM   8833  NH1  ARG C 697      16.486  80.508  34.505  1.00 109.06      7
ATOM   8834  NH2  ARG C 697      14.829  79.618  33.197  1.00 107.13      7
ATOM   8835  C    ARG C 697      21.367  75.685  33.293  1.00  56.05      6
ATOM   8836  O    ARG C 697      21.037  76.676  32.634  1.00  56.84      8
ATOM   8837  N    ASP C 698      22.510  75.031  33.112  1.00  28.31      7
ATOM   8838  CA   ASP C 698      23.501  75.437  32.123  1.00  25.94      6
ATOM   8839  CB   ASP C 698      23.192  74.808  30.754  1.00  44.98      6
```

158

```
ATOM   8840  CG   ASP C 698      24.071  73.593  30.449  1.00  46.56      6
ATOM   8841  OD1  ASP C 698      24.147  72.672  31.296  1.00  48.08      8
ATOM   8842  OD2  ASP C 698      24.682  73.556  29.359  1.00  46.15      8
ATOM   8843  C    ASP C 698      23.577  76.948  32.004  1.00  24.33      6
ATOM   8844  O    ASP C 698      23.360  77.512  30.930  1.00  24.07      8
ATOM   8845  N    PHE C 699      23.889  77.598  33.121  1.00  75.64      7
ATOM   8846  CA   PHE C 699      23.998  79.044  33.144  1.00  73.24      6
ATOM   8847  CB   PHE C 699      23.801  79.581  34.557  1.00  40.01      6
ATOM   8848  CG   PHE C 699      22.685  80.587  34.670  1.00  39.55      6
ATOM   8849  CD1  PHE C 699      21.392  80.260  34.279  1.00  38.54      6
ATOM   8850  CD2  PHE C 699      22.918  81.851  35.186  1.00  39.69      6
ATOM   8851  CE1  PHE C 699      20.358  81.166  34.403  1.00  36.47      6
ATOM   8852  CE2  PHE C 699      21.884  82.759  35.310  1.00  38.35      6
ATOM   8853  CZ   PHE C 699      20.602  82.410  34.916  1.00  37.08      6
ATOM   8854  C    PHE C 699      25.339  79.500  32.617  1.00  72.56      6
ATOM   8855  O    PHE C 699      25.542  79.560  31.407  1.00  73.46      8
ATOM   8856  N    TYR C 700      26.258  79.810  33.524  1.00  56.10      7
ATOM   8857  CA   TYR C 700      27.577  80.289  33.140  1.00  54.08      6
ATOM   8858  CB   TYR C 700      28.442  80.485  34.381  1.00  33.38      6
ATOM   8859  CG   TYR C 700      27.977  81.655  35.201  1.00  31.13      6
ATOM   8860  CD1  TYR C 700      27.599  81.502  36.537  1.00  30.78      6
ATOM   8861  CE1  TYR C 700      27.068  82.577  37.255  1.00  28.77      6
ATOM   8862  CD2  TYR C 700      27.824  82.909  34.615  1.00  30.51      6
ATOM   8863  CE2  TYR C 700      27.297  83.979  35.324  1.00  28.57      6
ATOM   8864  CZ   TYR C 700      26.920  83.803  36.628  1.00  27.48      6
ATOM   8865  OH   TYR C 700      26.357  84.849  37.283  1.00  27.27      8
ATOM   8866  C    TYR C 700      28.342  79.471  32.115  1.00  53.82      6
ATOM   8867  O    TYR C 700      29.516  79.732  31.890  1.00  54.29      8
ATOM   8868  N    THR C 701      27.694  78.497  31.484  1.00  39.84      7
ATOM   8869  CA   THR C 701      28.366  77.689  30.472  1.00  39.95      6
ATOM   8870  CB   THR C 701      27.471  76.562  29.956  1.00  20.05      6
ATOM   8871  OG1  THR C 701      26.281  77.124  29.393  1.00  19.30      8
ATOM   8872  CG2  THR C 701      27.117  75.610  31.086  1.00  19.72      6
ATOM   8873  C    THR C 701      28.799  78.533  29.276  1.00  39.81      6
ATOM   8874  O    THR C 701      28.035  79.360  28.760  1.00  37.90      8
ATOM   8875  N    SER C 702      30.036  78.304  28.841  1.00  65.25      7
ATOM   8876  CA   SER C 702      30.621  79.026  27.718  1.00  65.71      6
ATOM   8877  CB   SER C 702      31.654  80.023  28.236  1.00  87.67      6
ATOM   8878  OG   SER C 702      32.562  79.384  29.119  1.00  85.70      8
ATOM   8879  C    SER C 702      31.285  78.059  26.748  1.00  66.12      6
ATOM   8880  O    SER C 702      31.926  77.098  27.178  1.00  67.78      8
ATOM   8881  N    ILE C 703      31.131  78.313  25.447  1.00  20.82      7
ATOM   8882  CA   ILE C 703      31.718  77.448  24.419  1.00  20.77      6
ATOM   8883  CB   ILE C 703      30.787  77.250  23.211  1.00  38.44      6
ATOM   8884  CG2  ILE C 703      31.537  76.534  22.109  1.00  39.40      6
ATOM   8885  CG1  ILE C 703      29.557  76.440  23.601  1.00  40.33      6
ATOM   8886  CD1  ILE C 703      28.480  76.440  22.529  1.00  40.31      6
ATOM   8887  C    ILE C 703      32.999  78.042  23.877  1.00  19.96      6
ATOM   8888  O    ILE C 703      33.104  79.246  23.693  1.00  19.42      8
ATOM   8889  N    HIS C 704      33.965  77.182  23.605  1.00  38.89      7
ATOM   8890  CA   HIS C 704      35.232  77.625  23.073  1.00  40.71      6
ATOM   8891  CB   HIS C 704      36.270  77.734  24.188  1.00  79.40      6
ATOM   8892  CG   HIS C 704      35.882  78.673  25.288  1.00  83.37      6
ATOM   8893  CD2  HIS C 704      36.288  79.934  25.570  1.00  85.44      6
ATOM   8894  ND1  HIS C 704      34.977  78.334  26.271  1.00  84.92      7
ATOM   8895  CE1  HIS C 704      34.847  79.344  27.113  1.00  85.50      6
```

159

ATOM	8896	NE2	HIS	C	704	35.632	80.328	26.711	1.00	85.87	7
ATOM	8897	C	HIS	C	704	35.716	76.653	22.007	1.00	39.98	6
ATOM	8898	O	HIS	C	704	35.773	75.438	22.233	1.00	39.43	8
ATOM	8899	N	ILE	C	705	36.060	77.197	20.844	1.00	13.87	7
ATOM	8900	CA	ILE	C	705	36.543	76.389	19.746	1.00	13.87	6
ATOM	8901	CB	ILE	C	705	35.701	76.608	18.475	1.00	39.43	6
ATOM	8902	CG2	ILE	C	705	35.011	75.330	18.084	1.00	40.68	6
ATOM	8903	CG1	ILE	C	705	34.654	77.684	18.716	1.00	39.92	6
ATOM	8904	CD1	ILE	C	705	35.261	79.040	18.825	1.00	43.09	6
ATOM	8905	C	ILE	C	705	37.986	76.723	19.439	1.00	13.87	6
ATOM	8906	O	ILE	C	705	38.247	77.786	18.903	1.00	13.87	8
ATOM	8907	N	GLU	C	706	38.905	75.811	19.785	1.00	32.47	7
ATOM	8908	CA	GLU	C	706	40.352	75.951	19.552	1.00	35.06	6
ATOM	8909	CB	GLU	C	706	41.130	75.086	20.545	1.00	76.65	6
ATOM	8910	CG	GLU	C	706	42.651	75.117	20.368	1.00	81.21	6
ATOM	8911	CD	GLU	C	706	43.317	76.323	21.016	1.00	83.25	6
ATOM	8912	OE1	GLU	C	706	43.281	76.437	22.262	1.00	84.09	8
ATOM	8913	OE2	GLU	C	706	43.885	77.157	20.279	1.00	83.41	8
ATOM	8914	C	GLU	C	706	40.718	75.524	18.121	1.00	35.08	6
ATOM	8915	O	GLU	C	706	39.916	74.867	17.446	1.00	35.64	8
ATOM	8916	N	ARG	C	707	41.923	75.896	17.672	1.00	30.19	7
ATOM	8917	CA	ARG	C	707	42.413	75.584	16.321	1.00	30.93	6
ATOM	8918	CB	ARG	C	707	42.520	76.849	15.482	1.00	53.21	6
ATOM	8919	CG	ARG	C	707	43.605	77.795	15.963	1.00	56.91	6
ATOM	8920	CD	ARG	C	707	43.655	79.070	15.149	1.00	61.47	6
ATOM	8921	NE	ARG	C	707	44.493	78.952	13.961	1.00	65.82	7
ATOM	8922	CZ	ARG	C	707	44.377	79.742	12.896	1.00	68.23	6
ATOM	8923	NH1	ARG	C	707	43.455	80.697	12.875	1.00	68.81	7
ATOM	8924	NH2	ARG	C	707	45.182	79.586	11.853	1.00	69.19	7
ATOM	8925	C	ARG	C	707	43.796	74.991	16.393	1.00	30.73	6
ATOM	8926	O	ARG	C	707	44.642	75.525	17.097	1.00	30.61	8
ATOM	8927	N	TYR	C	708	44.040	73.916	15.648	1.00	41.08	7
ATOM	8928	CA	TYR	C	708	45.353	73.271	15.649	1.00	42.17	6
ATOM	8929	CB	TYR	C	708	45.212	71.843	16.148	1.00	27.21	6
ATOM	8930	CG	TYR	C	708	44.688	71.803	17.549	1.00	24.62	6
ATOM	8931	CD1	TYR	C	708	43.339	71.616	17.811	1.00	24.56	6
ATOM	8932	CE1	TYR	C	708	42.867	71.642	19.108	1.00	25.28	6
ATOM	8933	CD2	TYR	C	708	45.542	72.014	18.614	1.00	23.38	6
ATOM	8934	CE2	TYR	C	708	45.085	72.046	19.906	1.00	23.76	6
ATOM	8935	CZ	TYR	C	708	43.758	71.858	20.156	1.00	25.23	6
ATOM	8936	OH	TYR	C	708	43.348	71.865	21.474	1.00	27.05	8
ATOM	8937	C	TYR	C	708	45.989	73.306	14.266	1.00	44.32	6
ATOM	8938	O	TYR	C	708	45.282	73.429	13.271	1.00	45.03	8
ATOM	8939	N	GLU	C	709	47.308	73.173	14.180	1.00	59.72	7
ATOM	8940	CA	GLU	C	709	47.932	73.269	12.870	1.00	62.76	6
ATOM	8941	CB	GLU	C	709	48.237	74.740	12.613	1.00	68.42	6
ATOM	8942	CG	GLU	C	709	48.738	75.053	11.231	1.00	71.85	6
ATOM	8943	CD	GLU	C	709	49.304	76.451	11.139	1.00	73.03	6
ATOM	8944	OE1	GLU	C	709	50.381	76.692	11.733	1.00	74.70	8
ATOM	8945	OE2	GLU	C	709	48.672	77.308	10.480	1.00	73.65	8
ATOM	8946	C	GLU	C	709	49.199	72.448	12.619	1.00	64.91	6
ATOM	8947	O	GLU	C	709	50.171	72.572	13.360	1.00	67.17	8
ATOM	8948	N	ILE	C	710	49.202	71.623	11.570	1.00	28.62	7
ATOM	8949	CA	ILE	C	710	50.392	70.833	11.233	1.00	29.55	6
ATOM	8950	CB	ILE	C	710	50.149	69.317	11.163	1.00	52.72	6
ATOM	8951	CG2	ILE	C	710	51.454	68.583	11.256	1.00	50.81	6

ATOM	8952	CG1	ILE	C	710	49.253	68.869	12.298	1.00	55.07	6
ATOM	8953	CD1	ILE	C	710	47.826	69.266	12.079	1.00	58.93	6
ATOM	8954	C	ILE	C	710	50.744	71.246	9.833	1.00	30.82	6
ATOM	8955	O	ILE	C	710	49.868	71.319	8.973	1.00	30.33	8
ATOM	8956	N	GLU	C	711	52.024	71.515	9.605	1.00	72.44	7
ATOM	8957	CA	GLU	C	711	52.501	71.913	8.288	1.00	74.96	6
ATOM	8958	CB	GLU	C	711	53.389	73.162	8.387	1.00	90.20	6
ATOM	8959	CG	GLU	C	711	52.666	74.462	8.725	1.00	94.40	6
ATOM	8960	CD	GLU	C	711	53.627	75.600	9.069	1.00	97.08	6
ATOM	8961	OE1	GLU	C	711	54.455	75.974	8.207	1.00	98.13	8
ATOM	8962	OE2	GLU	C	711	53.553	76.120	10.208	1.00	97.93	8
ATOM	8963	C	GLU	C	711	53.310	70.774	7.676	1.00	75.37	6
ATOM	8964	O	GLU	C	711	54.193	70.211	8.325	1.00	75.49	8
ATOM	8965	N	ALA	C	712	52.991	70.433	6.430	1.00	25.69	7
ATOM	8966	CA	ALA	C	712	53.703	69.393	5.702	1.00	26.17	6
ATOM	8967	CB	ALA	C	712	52.773	68.741	4.709	1.00	74.02	6
ATOM	8968	C	ALA	C	712	54.897	70.036	4.978	1.00	27.04	6
ATOM	8969	O	ALA	C	712	54.767	70.553	3.866	1.00	26.68	8
ATOM	8970	N	ARG	C	713	56.053	70.003	5.636	1.00	51.20	7
ATOM	8971	CA	ARG	C	713	57.290	70.579	5.117	1.00	53.11	6
ATOM	8972	CB	ARG	C	713	58.366	70.539	6.207	1.00	108.41	6
ATOM	8973	CG	ARG	C	713	58.098	71.496	7.366	1.00	111.69	6
ATOM	8974	CD	ARG	C	713	58.397	72.927	6.942	1.00	114.40	6
ATOM	8975	NE	ARG	C	713	57.790	73.928	7.817	1.00	116.47	7
ATOM	8976	CZ	ARG	C	713	57.986	75.241	7.699	1.00	116.60	6
ATOM	8977	NH1	ARG	C	713	58.780	75.715	6.744	1.00	116.86	7
ATOM	8978	NH2	ARG	C	713	57.372	76.085	8.520	1.00	115.66	7
ATOM	8979	C	ARG	C	713	57.788	69.890	3.851	1.00	53.27	6
ATOM	8980	O	ARG	C	713	56.987	69.472	3.020	1.00	52.90	8
ATOM	8981	N	ASP	C	714	59.106	69.771	3.699	1.00	87.14	7
ATOM	8982	CA	ASP	C	714	59.674	69.145	2.502	1.00	87.63	6
ATOM	8983	CB	ASP	C	714	59.626	70.149	1.338	1.00	103.53	6
ATOM	8984	CG	ASP	C	714	59.136	69.529	0.035	1.00	104.91	6
ATOM	8985	OD1	ASP	C	714	59.789	68.587	-0.462	1.00	107.02	8
ATOM	8986	OD2	ASP	C	714	58.099	69.989	-0.497	1.00	105.51	8
ATOM	8987	C	ASP	C	714	61.118	68.643	2.695	1.00	86.74	6
ATOM	8988	O	ASP	C	714	61.704	68.070	1.780	1.00	86.18	8
ATOM	8989	N	THR	C	715	61.672	68.869	3.885	1.00	55.98	7
ATOM	8990	CA	THR	C	715	63.033	68.463	4.256	1.00	55.80	6
ATOM	8991	CB	THR	C	715	63.066	67.954	5.709	1.00	148.26	6
ATOM	8992	OG1	THR	C	715	62.642	69.000	6.591	1.00	151.31	8
ATOM	8993	CG2	THR	C	715	64.470	67.518	6.091	1.00	148.86	6
ATOM	8994	C	THR	C	715	63.689	67.403	3.371	1.00	54.30	6
ATOM	8995	O	THR	C	715	63.036	66.464	2.911	1.00	53.89	8
ATOM	8996	N	LYS	C	716	65.000	67.553	3.175	1.00	77.81	7
ATOM	8997	CA	LYS	C	716	65.806	66.660	2.331	1.00	76.91	6
ATOM	8998	CB	LYS	C	716	67.181	67.290	2.094	1.00	101.38	6
ATOM	8999	CG	LYS	C	716	67.121	68.775	1.775	1.00	103.28	6
ATOM	9000	CD	LYS	C	716	66.210	69.057	0.586	1.00	104.17	6
ATOM	9001	CE	LYS	C	716	66.006	70.551	0.378	1.00	104.81	6
ATOM	9002	NZ	LYS	C	716	65.012	70.813	-0.697	1.00	104.29	7
ATOM	9003	C	LYS	C	716	65.996	65.230	2.837	1.00	75.08	6
ATOM	9004	O	LYS	C	716	67.114	64.726	2.906	1.00	75.31	8
ATOM	9005	N	LEU	C	717	64.896	64.574	3.171	1.00	36.58	7
ATOM	9006	CA	LEU	C	717	64.943	63.208	3.661	1.00	34.45	6
ATOM	9007	CB	LEU	C	717	64.889	63.195	5.197	1.00	47.94	6

```
ATOM   9008  CG   LEU C 717      65.909  63.963   6.051  1.00  47.94      6
ATOM   9009  CD1  LEU C 717      65.231  64.441   7.322  1.00  47.23      6
ATOM   9010  CD2  LEU C 717      67.111  63.086   6.388  1.00  48.12      6
ATOM   9011  C    LEU C 717      63.702  62.506   3.093  1.00  33.29      6
ATOM   9012  O    LEU C 717      63.535  61.293   3.222  1.00  33.04      8
ATOM   9013  N    GLY C 718      62.840  63.288   2.453  1.00  78.89      7
ATOM   9014  CA   GLY C 718      61.616  62.750   1.890  1.00  77.32      6
ATOM   9015  C    GLY C 718      60.473  63.676   2.266  1.00  76.02      6
ATOM   9016  O    GLY C 718      60.290  63.967   3.451  1.00  77.03      8
ATOM   9017  N    PRO C 719      59.677  64.143   1.289  1.00  28.75      7
ATOM   9018  CD   PRO C 719      59.532  63.487  -0.017  1.00  61.22      6
ATOM   9019  CA   PRO C 719      58.551  65.047   1.517  1.00  26.52      6
ATOM   9020  CB   PRO C 719      57.773  64.939   0.218  1.00  60.27      6
ATOM   9021  CG   PRO C 719      58.052  63.544  -0.211  1.00  61.08      6
ATOM   9022  C    PRO C 719      57.705  64.679   2.730  1.00  24.65      6
ATOM   9023  O    PRO C 719      57.291  63.528   2.888  1.00  23.98      8
ATOM   9024  N    GLU C 720      57.449  65.675   3.575  1.00  74.17      7
ATOM   9025  CA   GLU C 720      56.654  65.515   4.791  1.00  72.87      6
ATOM   9026  CB   GLU C 720      56.977  66.683   5.731  1.00  33.81      6
ATOM   9027  CG   GLU C 720      56.510  66.482   7.150  1.00  34.95      6
ATOM   9028  CD   GLU C 720      57.247  67.350   8.159  1.00  35.85      6
ATOM   9029  OE1  GLU C 720      57.315  68.583   7.975  1.00  37.31      8
ATOM   9030  OE2  GLU C 720      57.753  66.797   9.158  1.00  37.14      8
ATOM   9031  C    GLU C 720      55.172  65.519   4.395  1.00  72.23      6
ATOM   9032  O    GLU C 720      54.634  66.578   4.100  1.00  73.55      8
ATOM   9033  N    ARG C 721      54.508  64.359   4.402  1.00  13.87      7
ATOM   9034  CA   ARG C 721      53.105  64.293   3.964  1.00  13.87      6
ATOM   9035  CB   ARG C 721      53.058  63.421   2.712  1.00  78.27      6
ATOM   9036  CG   ARG C 721      54.048  62.262   2.741  1.00  82.81      6
ATOM   9037  CD   ARG C 721      54.002  61.436   1.459  1.00  85.00      6
ATOM   9038  NE   ARG C 721      54.864  60.258   1.533  1.00  87.32      7
ATOM   9039  CZ   ARG C 721      54.912  59.309   0.603  1.00  88.92      6
ATOM   9040  NH1  ARG C 721      54.143  59.402  -0.473  1.00  90.34      7
ATOM   9041  NH2  ARG C 721      55.727  58.270   0.743  1.00  89.06      7
ATOM   9042  C    ARG C 721      51.944  63.891   4.917  1.00  13.87      6
ATOM   9043  O    ARG C 721      52.069  62.980   5.723  1.00  13.87      8
ATOM   9044  N    ILE C 722      50.807  64.589   4.782  1.00  55.68      7
ATOM   9045  CA   ILE C 722      49.577  64.366   5.574  1.00  55.53      6
ATOM   9046  CB   ILE C 722      48.592  65.591   5.476  1.00  24.95      6
ATOM   9047  CG2  ILE C 722      47.231  65.222   5.956  1.00  24.08      6
ATOM   9048  CG1  ILE C 722      49.086  66.757   6.315  1.00  22.72      6
ATOM   9049  CD1  ILE C 722      49.644  67.910   5.495  1.00  22.52      6
ATOM   9050  C    ILE C 722      48.833  63.141   5.037  1.00  56.81      6
ATOM   9051  O    ILE C 722      47.989  63.269   4.147  1.00  58.37      8
ATOM   9052  N    THR C 723      49.129  61.966   5.589  1.00  28.07      7
ATOM   9053  CA   THR C 723      48.520  60.704   5.142  1.00  28.92      6
ATOM   9054  CB   THR C 723      49.590  59.663   4.793  1.00  55.19      6
ATOM   9055  OG1  THR C 723      49.707  58.734   5.878  1.00  54.66      8
ATOM   9056  CG2  THR C 723      50.943  60.329   4.592  1.00  56.20      6
ATOM   9057  C    THR C 723      47.687  60.061   6.227  1.00  29.52      6
ATOM   9058  O    THR C 723      47.771  60.438   7.392  1.00  29.63      8
ATOM   9059  N    ALA C 724      46.893  59.069   5.856  1.00  33.12      7
ATOM   9060  CA   ALA C 724      46.100  58.364   6.857  1.00  35.05      6
ATOM   9061  CB   ALA C 724      44.668  58.166   6.377  1.00  81.81      6
ATOM   9062  C    ALA C 724      46.776  57.012   7.110  1.00  35.95      6
ATOM   9063  O    ALA C 724      46.376  56.265   8.003  1.00  35.14      8
```

```
ATOM    9064  N   ASP C 725      47.813  56.713   6.325  1.00 48.22      7
ATOM    9065  CA  ASP C 725      48.562  55.462   6.465  1.00 50.41      6
ATOM    9066  CB  ASP C 725      49.056  54.969   5.096  1.00135.83      6
ATOM    9067  CG  ASP C 725      49.925  55.994   4.368  1.00140.29      6
ATOM    9068  OD1 ASP C 725      50.925  56.472   4.945  1.00142.55      8
ATOM    9069  OD2 ASP C 725      49.612  56.313   3.202  1.00142.25      8
ATOM    9070  C   ASP C 725      49.753  55.649   7.401  1.00 50.45      6
ATOM    9071  O   ASP C 725      50.905  55.434   7.018  1.00 49.56      8
ATOM    9072  N   ILE C 726      49.485  56.040   8.639  1.00 18.04      7
ATOM    9073  CA  ILE C 726      50.586  56.249   9.564  1.00 19.68      6
ATOM    9074  CB  ILE C 726      50.171  57.123  10.759  1.00 99.69      6
ATOM    9075  CG2 ILE C 726      51.412  57.681  11.436  1.00100.55      6
ATOM    9076  CG1 ILE C 726      49.311  58.296  10.282  1.00100.68      6
ATOM    9077  CD1 ILE C 726      47.898  57.913   9.923  1.00103.55      6
ATOM    9078  C   ILE C 726      51.108  54.911  10.068  1.00 20.10      6
ATOM    9079  O   ILE C 726      50.345  54.066  10.531  1.00 18.78      8
ATOM    9080  N   PRO C 727      52.427  54.708   9.983  1.00 49.83      7
ATOM    9081  CD  PRO C 727      53.409  55.723   9.573  1.00 39.86      6
ATOM    9082  CA  PRO C 727      53.111  53.489  10.409  1.00 52.26      6
ATOM    9083  CB  PRO C 727      54.585  53.839  10.191  1.00 41.13      6
ATOM    9084  CG  PRO C 727      54.619  55.306  10.355  1.00 40.83      6
ATOM    9085  C   PRO C 727      52.833  52.945  11.819  1.00 54.67      6
ATOM    9086  O   PRO C 727      52.907  53.671  12.813  1.00 54.95      8
ATOM    9087  N   HIS C 728      52.523  51.650  11.877  1.00103.53      7
ATOM    9088  CA  HIS C 728      52.253  50.922  13.119  1.00106.42      6
ATOM    9089  CB  HIS C 728      53.554  50.696  13.892  1.00 81.73      6
ATOM    9090  CG  HIS C 728      54.724  50.396  13.011  1.00 82.69      6
ATOM    9091  CD2 HIS C 728      56.024  50.764  13.100  1.00 82.73      6
ATOM    9092  ND1 HIS C 728      54.613  49.654  11.854  1.00 83.03      7
ATOM    9093  CE1 HIS C 728      55.794  49.581  11.266  1.00 83.77      6
ATOM    9094  NE2 HIS C 728      56.668  50.246  12.001  1.00 83.57      7
ATOM    9095  C   HIS C 728      51.229  51.570  14.034  1.00107.81      6
ATOM    9096  O   HIS C 728      50.869  51.013  15.072  1.00107.76      8
ATOM    9097  N   LEU C 729      50.770  52.754  13.652  1.00 67.78      7
ATOM    9098  CA  LEU C 729      49.761  53.460  14.422  1.00 68.12      6
ATOM    9099  CB  LEU C 729      49.593  54.869  13.860  1.00 89.16      6
ATOM    9100  CG  LEU C 729      48.724  55.863  14.621  1.00 90.78      6
ATOM    9101  CD1 LEU C 729      49.227  55.984  16.045  1.00 92.34      6
ATOM    9102  CD2 LEU C 729      48.759  57.211  13.917  1.00 91.03      6
ATOM    9103  C   LEU C 729      48.500  52.632  14.191  1.00 68.16      6
ATOM    9104  O   LEU C 729      47.477  52.824  14.839  1.00 67.48      8
ATOM    9105  N   SER C 730      48.626  51.699  13.250  1.00 37.40      7
ATOM    9106  CA  SER C 730      47.581  50.780  12.829  1.00 39.19      6
ATOM    9107  CB  SER C 730      48.182  49.397  12.573  1.00171.68      6
ATOM    9108  OG  SER C 730      48.748  48.864  13.757  1.00174.99      8
ATOM    9109  C   SER C 730      46.403  50.643  13.769  1.00 39.37      6
ATOM    9110  O   SER C 730      45.267  50.490  13.311  1.00 38.41      8
ATOM    9111  N   GLU C 731      46.662  50.666  15.073  1.00 87.98      7
ATOM    9112  CA  GLU C 731      45.581  50.559  16.043  1.00 89.62      6
ATOM    9113  CB  GLU C 731      45.897  51.360  17.311  1.00 85.62      6
ATOM    9114  CG  GLU C 731      46.841  50.716  18.314  1.00 86.23      6
ATOM    9115  CD  GLU C 731      46.972  51.563  19.565  1.00 86.43      6
ATOM    9116  OE1 GLU C 731      45.922  51.873  20.167  1.00 86.77      8
ATOM    9117  OE2 GLU C 731      48.111  51.924  19.939  1.00 86.84      8
ATOM    9118  C   GLU C 731      44.335  51.150  15.407  1.00 90.42      6
ATOM    9119  O   GLU C 731      44.418  52.135  14.680  1.00 91.43      8
```

163

```
ATOM    9120  N   ALA C 732    43.181  50.552  15.651  1.00 65.70      7
ATOM    9121  CA  ALA C 732    41.965  51.102  15.085  1.00 66.50      6
ATOM    9122  CB  ALA C 732    40.777  50.219  15.428  1.00161.43      6
ATOM    9123  C   ALA C 732    41.793  52.484  15.705  1.00 66.79      6
ATOM    9124  O   ALA C 732    41.086  52.641  16.700  1.00 67.04      8
ATOM    9125  N   ALA C 733    42.481  53.467  15.126  1.00 50.23      7
ATOM    9126  CA  ALA C 733    42.444  54.865  15.557  1.00 49.45      6
ATOM    9127  CB  ALA C 733    43.731  55.252  16.247  1.00 13.87      6
ATOM    9128  C   ALA C 733    42.352  55.588  14.248  1.00 49.60      6
ATOM    9129  O   ALA C 733    41.327  56.170  13.900  1.00 49.80      8
ATOM    9130  N   LEU C 734    43.459  55.514  13.525  1.00 61.31      7
ATOM    9131  CA  LEU C 734    43.614  56.108  12.206  1.00 62.40      6
ATOM    9132  CB  LEU C 734    44.379  55.138  11.312  1.00 67.95      6
ATOM    9133  CG  LEU C 734    45.512  54.422  12.034  1.00 68.37      6
ATOM    9134  CD1 LEU C 734    45.858  53.168  11.259  1.00 69.37      6
ATOM    9135  CD2 LEU C 734    46.704  55.357  12.199  1.00 67.78      6
ATOM    9136  C   LEU C 734    42.274  56.402  11.560  1.00 62.65      6
ATOM    9137  O   LEU C 734    41.699  57.478  11.743  1.00 62.31      8
ATOM    9138  N   ARG C 735    41.800  55.415  10.805  1.00146.73      7
ATOM    9139  CA  ARG C 735    40.539  55.495  10.091  1.00146.90      6
ATOM    9140  CB  ARG C 735    40.562  54.540   8.892  1.00160.15      6
ATOM    9141  CG  ARG C 735    41.615  54.913   7.849  1.00162.75      6
ATOM    9142  CD  ARG C 735    41.786  53.827   6.801  1.00166.69      6
ATOM    9143  NE  ARG C 735    42.920  54.096   5.918  1.00169.50      7
ATOM    9144  CZ  ARG C 735    43.435  53.210   5.067  1.00170.43      6
ATOM    9145  NH1 ARG C 735    42.919  51.989   4.981  1.00171.49      7
ATOM    9146  NH2 ARG C 735    44.467  53.542   4.302  1.00170.03      7
ATOM    9147  C   ARG C 735    39.349  55.203  11.002  1.00145.75      6
ATOM    9148  O   ARG C 735    38.202  55.181  10.549  1.00146.80      8
ATOM    9149  N   ASP C 736    39.621  54.972  12.286  1.00 94.65      7
ATOM    9150  CA  ASP C 736    38.541  54.738  13.242  1.00 92.16      6
ATOM    9151  CB  ASP C 736    39.091  54.274  14.598  1.00181.71      6
ATOM    9152  CG  ASP C 736    38.028  53.604  15.467  1.00184.26      6
ATOM    9153  OD1 ASP C 736    37.045  54.276  15.841  1.00185.06      8
ATOM    9154  OD2 ASP C 736    38.177  52.401  15.775  1.00184.92      8
ATOM    9155  C   ASP C 736    37.965  56.145  13.334  1.00 88.95      6
ATOM    9156  O   ASP C 736    36.883  56.382  13.860  1.00 88.81      8
ATOM    9157  N   LEU C 737    38.742  57.067  12.785  1.00 49.70      7
ATOM    9158  CA  LEU C 737    38.427  58.479  12.688  1.00 46.17      6
ATOM    9159  CB  LEU C 737    38.811  59.197  13.971  1.00 66.95      6
ATOM    9160  CG  LEU C 737    38.021  58.770  15.203  1.00 67.44      6
ATOM    9161  CD1 LEU C 737    38.541  59.520  16.433  1.00 67.94      6
ATOM    9162  CD2 LEU C 737    36.539  59.037  14.962  1.00 67.08      6
ATOM    9163  C   LEU C 737    39.361  58.876  11.556  1.00 43.59      6
ATOM    9164  O   LEU C 737    39.724  58.036  10.745  1.00 43.12      8
ATOM    9165  N   ALA C 738    39.747  60.136  11.478  1.00 51.25      7
ATOM    9166  CA  ALA C 738    40.673  60.534  10.434  1.00 48.98      6
ATOM    9167  CB  ALA C 738    42.075  60.088  10.823  1.00 13.87      6
ATOM    9168  C   ALA C 738    40.307  59.926   9.090  1.00 47.86      6
ATOM    9169  O   ALA C 738    40.893  58.938   8.704  1.00 47.89      8
ATOM    9170  N   GLU C 739    39.348  60.496   8.376  1.00 27.31      7
ATOM    9171  CA  GLU C 739    38.975  59.959   7.072  1.00 27.39      6
ATOM    9172  CB  GLU C 739    37.475  60.158   6.801  1.00132.71      6
ATOM    9173  CG  GLU C 739    37.062  61.524   6.264  1.00136.99      6
ATOM    9174  CD  GLU C 739    36.706  61.491   4.785  1.00139.07      6
ATOM    9175  OE1 GLU C 739    35.918  60.610   4.376  1.00139.76      8
```

164

```
ATOM   9176  OE2 GLU C 739      37.204  62.355   4.033  1.00140.52      8
ATOM   9177  C   GLU C 739      39.815  60.646   6.002  1.00 26.59      6
ATOM   9178  O   GLU C 739      39.869  61.886   5.938  1.00 24.52      8
ATOM   9179  N   GLU C 740      40.476  59.813   5.189  1.00 87.32      7
ATOM   9180  CA  GLU C 740      41.383  60.209   4.098  1.00 87.44      6
ATOM   9181  CB  GLU C 740      40.601  60.823   2.923  1.00 93.01      6
ATOM   9182  CG  GLU C 740      39.903  59.786   2.032  1.00 95.24      6
ATOM   9183  CD  GLU C 740      39.841  60.197   0.555  1.00 97.00      6
ATOM   9184  OE1 GLU C 740      40.909  60.453  -0.046  1.00 96.19      8
ATOM   9185  OE2 GLU C 740      38.727  60.255  -0.014  1.00 99.01      8
ATOM   9186  C   GLU C 740      42.541  61.138   4.513  1.00 86.01      6
ATOM   9187  O   GLU C 740      43.079  61.899   3.698  1.00 85.82      8
ATOM   9188  N   GLY C 741      42.932  61.046   5.784  1.00 68.95      7
ATOM   9189  CA  GLY C 741      44.013  61.865   6.305  1.00 65.05      6
ATOM   9190  C   GLY C 741      43.694  62.646   7.577  1.00 62.52      6
ATOM   9191  O   GLY C 741      44.281  62.406   8.632  1.00 62.09      8
ATOM   9192  N   ILE C 742      42.750  63.573   7.480  1.00 68.13      7
ATOM   9193  CA  ILE C 742      42.373  64.422   8.604  1.00 67.23      6
ATOM   9194  CB  ILE C 742      42.153  65.846   8.094  1.00 44.50      6
ATOM   9195  CG2 ILE C 742      41.758  66.753   9.243  1.00 44.68      6
ATOM   9196  CG1 ILE C 742      43.417  66.337   7.379  1.00 44.07      6
ATOM   9197  CD1 ILE C 742      43.210  67.589   6.540  1.00 46.03      6
ATOM   9198  C   ILE C 742      41.113  63.967   9.352  1.00 66.56      6
ATOM   9199  O   ILE C 742      40.197  63.423   8.737  1.00 67.84      8
ATOM   9200  N   VAL C 743      41.075  64.201  10.669  1.00 34.97      7
ATOM   9201  CA  VAL C 743      39.929  63.838  11.517  1.00 31.92      6
ATOM   9202  CB  VAL C 743      40.014  64.506  12.923  1.00 31.40      6
ATOM   9203  CG1 VAL C 743      38.798  65.361  13.184  1.00 30.37      6
ATOM   9204  CG2 VAL C 743      40.110  63.468  13.999  1.00 30.39      6
ATOM   9205  C   VAL C 743      38.657  64.322  10.841  1.00 31.20      6
ATOM   9206  O   VAL C 743      38.699  65.219   9.997  1.00 30.47      8
ATOM   9207  N   ALA C 744      37.523  63.744  11.210  1.00 53.96      7
ATOM   9208  CA  ALA C 744      36.256  64.150  10.607  1.00 54.41      6
ATOM   9209  CB  ALA C 744      35.362  62.927  10.407  1.00103.76      6
ATOM   9210  C   ALA C 744      35.534  65.197  11.454  1.00 53.29      6
ATOM   9211  O   ALA C 744      36.020  65.581  12.519  1.00 53.58      8
ATOM   9212  N   ILE C 745      34.381  65.663  10.978  1.00 16.77      7
ATOM   9213  CA  ILE C 745      33.620  66.653  11.728  1.00 13.90      6
ATOM   9214  CB  ILE C 745      32.634  67.422  10.852  1.00 35.23      6
ATOM   9215  CG2 ILE C 745      32.013  68.549  11.667  1.00 33.55      6
ATOM   9216  CG1 ILE C 745      33.354  67.995   9.634  1.00 35.74      6
ATOM   9217  CD1 ILE C 745      34.431  68.987   9.992  1.00 36.65      6
ATOM   9218  C   ILE C 745      32.836  65.918  12.792  1.00 13.87      6
ATOM   9219  O   ILE C 745      32.599  64.723  12.672  1.00 13.87      8
ATOM   9220  N   GLY C 746      32.448  66.639  13.836  1.00 42.04      7
ATOM   9221  CA  GLY C 746      31.702  66.034  14.925  1.00 43.25      6
ATOM   9222  C   GLY C 746      32.507  64.934  15.577  1.00 43.26      6
ATOM   9223  O   GLY C 746      32.074  64.275  16.523  1.00 42.12      8
ATOM   9224  N   ALA C 747      33.709  64.746  15.066  1.00 32.22      7
ATOM   9225  CA  ALA C 747      34.560  63.709  15.587  1.00 33.91      6
ATOM   9226  CB  ALA C 747      35.754  63.542  14.682  1.00 37.39      6
ATOM   9227  C   ALA C 747      35.012  64.005  17.012  1.00 35.07      6
ATOM   9228  O   ALA C 747      36.157  64.414  17.226  1.00 35.92      8
ATOM   9229  N   GLU C 748      34.135  63.800  17.994  1.00 22.58      7
ATOM   9230  CA  GLU C 748      34.531  64.064  19.376  1.00 23.16      6
ATOM   9231  CB  GLU C 748      33.567  63.386  20.343  1.00 71.83      6
```

165

ATOM	9232	CG	GLU	C	748	33.923	63.604	21.789	1.00	74.78	6
ATOM	9233	CD	GLU	C	748	35.057	62.711	22.235	1.00	75.97	6
ATOM	9234	OE1	GLU	C	748	35.635	62.969	23.317	1.00	76.61	8
ATOM	9235	OE2	GLU	C	748	35.360	61.744	21.503	1.00	76.18	8
ATOM	9236	C	GLU	C	748	35.975	63.585	19.611	1.00	22.18	6
ATOM	9237	O	GLU	C	748	36.345	62.466	19.273	1.00	21.12	8
ATOM	9238	N	VAL	C	749	36.789	64.462	20.176	1.00	36.56	7
ATOM	9239	CA	VAL	C	749	38.190	64.166	20.427	1.00	38.14	6
ATOM	9240	CB	VAL	C	749	39.072	65.147	19.673	1.00	13.87	6
ATOM	9241	CG1	VAL	C	749	40.491	65.057	20.173	1.00	13.87	6
ATOM	9242	CG2	VAL	C	749	38.982	64.870	18.201	1.00	13.87	6
ATOM	9243	C	VAL	C	749	38.608	64.206	21.894	1.00	40.54	6
ATOM	9244	O	VAL	C	749	38.192	65.072	22.660	1.00	41.94	8
ATOM	9245	N	LYS	C	750	39.456	63.261	22.271	1.00	37.16	7
ATOM	9246	CA	LYS	C	750	39.967	63.170	23.627	1.00	37.78	6
ATOM	9247	CB	LYS	C	750	39.821	61.736	24.137	1.00	72.44	6
ATOM	9248	CG	LYS	C	750	40.427	60.691	23.202	1.00	74.47	6
ATOM	9249	CD	LYS	C	750	39.798	59.302	23.376	1.00	75.51	6
ATOM	9250	CE	LYS	C	750	40.386	58.286	22.391	1.00	74.34	6
ATOM	9251	NZ	LYS	C	750	39.770	56.934	22.485	1.00	74.01	7
ATOM	9252	C	LYS	C	750	41.431	63.569	23.544	1.00	37.97	6
ATOM	9253	O	LYS	C	750	41.969	63.794	22.460	1.00	36.77	8
ATOM	9254	N	PRO	C	751	42.094	63.700	24.685	1.00	24.59	7
ATOM	9255	CD	PRO	C	751	41.687	63.718	26.100	1.00	48.62	6
ATOM	9256	CA	PRO	C	751	43.490	64.078	24.532	1.00	26.26	6
ATOM	9257	CB	PRO	C	751	43.838	64.642	25.902	1.00	48.60	6
ATOM	9258	CG	PRO	C	751	43.022	63.780	26.814	1.00	49.06	6
ATOM	9259	C	PRO	C	751	44.277	62.824	24.178	1.00	27.98	6
ATOM	9260	O	PRO	C	751	44.156	61.791	24.850	1.00	27.80	8
ATOM	9261	N	GLY	C	752	45.054	62.918	23.099	1.00	97.48	7
ATOM	9262	CA	GLY	C	752	45.865	61.800	22.653	1.00	96.93	6
ATOM	9263	C	GLY	C	752	45.563	61.310	21.247	1.00	96.17	6
ATOM	9264	O	GLY	C	752	46.444	60.777	20.571	1.00	96.71	8
ATOM	9265	N	ASP	C	753	44.322	61.498	20.801	1.00	39.63	7
ATOM	9266	CA	ASP	C	753	43.893	61.050	19.478	1.00	38.92	6
ATOM	9267	CB	ASP	C	753	42.410	61.355	19.292	1.00	59.87	6
ATOM	9268	CG	ASP	C	753	41.535	60.535	20.214	1.00	61.42	6
ATOM	9269	OD1	ASP	C	753	40.289	60.633	20.108	1.00	61.59	8
ATOM	9270	OD2	ASP	C	753	42.104	59.793	21.045	1.00	62.12	8
ATOM	9271	C	ASP	C	753	44.688	61.630	18.318	1.00	37.17	6
ATOM	9272	O	ASP	C	753	45.423	62.592	18.486	1.00	37.59	8
ATOM	9273	N	ILE	C	754	44.531	61.040	17.137	1.00	26.11	7
ATOM	9274	CA	ILE	C	754	45.260	61.499	15.961	1.00	23.46	6
ATOM	9275	CB	ILE	C	754	45.497	60.352	14.948	1.00	16.19	6
ATOM	9276	CG2	ILE	C	754	46.279	60.872	13.756	1.00	15.99	6
ATOM	9277	CG1	ILE	C	754	46.196	59.160	15.631	1.00	16.51	6
ATOM	9278	CD1	ILE	C	754	47.629	59.389	16.079	1.00	14.91	6
ATOM	9279	C	ILE	C	754	44.516	62.613	15.237	1.00	20.74	6
ATOM	9280	O	ILE	C	754	43.981	62.411	14.157	1.00	20.04	8
ATOM	9281	N	LEU	C	755	44.496	63.791	15.846	1.00	26.14	7
ATOM	9282	CA	LEU	C	755	43.852	64.976	15.294	1.00	22.56	6
ATOM	9283	CB	LEU	C	755	44.432	66.181	16.005	1.00	20.32	6
ATOM	9284	CG	LEU	C	755	43.540	67.393	15.999	1.00	20.63	6
ATOM	9285	CD1	LEU	C	755	43.437	67.869	14.556	1.00	22.66	6
ATOM	9286	CD2	LEU	C	755	42.172	67.036	16.595	1.00	19.01	6
ATOM	9287	C	LEU	C	755	44.049	65.095	13.786	1.00	21.40	6

```
ATOM    9288   O    LEU C 755    43.126  65.382  13.055  1.00 16.16    8
ATOM    9289   N    VAL C 756    45.283  64.894  13.345  1.00 66.98    7
ATOM    9290   CA   VAL C 756    45.666  64.907  11.926  1.00 69.54    6
ATOM    9291   CB   VAL C 756    45.933  66.312  11.350  1.00 18.63    6
ATOM    9292   CG1  VAL C 756    46.505  66.172   9.947  1.00 15.76    6
ATOM    9293   CG2  VAL C 756    44.657  67.146  11.336  1.00 18.49    6
ATOM    9294   C    VAL C 756    46.988  64.167  11.865  1.00 71.56    6
ATOM    9295   O    VAL C 756    47.870  64.414  12.680  1.00 74.23    8
ATOM    9296   N    GLY C 757    47.149  63.274  10.905  1.00 23.06    7
ATOM    9297   CA   GLY C 757    48.395  62.544  10.863  1.00 24.27    6
ATOM    9298   C    GLY C 757    49.137  62.674   9.566  1.00 25.32    6
ATOM    9299   O    GLY C 757    48.529  62.731   8.496  1.00 26.18    8
ATOM    9300   N    ARG C 758    50.460  62.754   9.660  1.00 28.46    7
ATOM    9301   CA   ARG C 758    51.281  62.834   8.463  1.00 27.52    6
ATOM    9302   CB   ARG C 758    51.556  64.302   8.053  1.00 31.61    6
ATOM    9303   CG   ARG C 758    52.750  65.005   8.673  1.00 27.68    6
ATOM    9304   CD   ARG C 758    52.462  65.585  10.051  1.00 24.98    6
ATOM    9305   NE   ARG C 758    53.632  66.283  10.573  1.00 22.57    7
ATOM    9306   CZ   ARG C 758    54.214  67.298   9.951  1.00 20.92    6
ATOM    9307   NH1  ARG C 758    53.731  67.731   8.793  1.00 21.14    7
ATOM    9308   NH2  ARG C 758    55.283  67.868  10.476  1.00 18.96    7
ATOM    9309   C    ARG C 758    52.558  62.021   8.675  1.00 28.41    6
ATOM    9310   O    ARG C 758    52.877  61.608   9.792  1.00 27.52    8
ATOM    9311   N    THR C 759    53.276  61.774   7.593  1.00 38.73    7
ATOM    9312   CA   THR C 759    54.470  60.955   7.657  1.00 42.64    6
ATOM    9313   CB   THR C 759    54.193  59.641   6.910  1.00 66.71    6
ATOM    9314   OG1  THR C 759    53.724  59.924   5.579  1.00 70.05    8
ATOM    9315   CG2  THR C 759    53.119  58.841   7.649  1.00 66.40    6
ATOM    9316   C    THR C 759    55.782  61.568   7.144  1.00 44.26    6
ATOM    9317   O    THR C 759    55.884  62.058   6.016  1.00 43.54    8
ATOM    9318   N    SER C 760    56.794  61.542   7.992  1.00 92.34    7
ATOM    9319   CA   SER C 760    58.090  62.050   7.602  1.00 96.05    6
ATOM    9320   CB   SER C 760    58.802  62.664   8.804  1.00 59.96    6
ATOM    9321   OG   SER C 760    60.156  62.940   8.492  1.00 60.72    8
ATOM    9322   C    SER C 760    58.876  60.851   7.079  1.00 98.27    6
ATOM    9323   O    SER C 760    58.360  59.731   7.049  1.00100.07    8
ATOM    9324   N    PHE C 761    60.116  61.083   6.666  1.00 30.80    7
ATOM    9325   CA   PHE C 761    60.957  60.008   6.154  1.00 32.27    6
ATOM    9326   CB   PHE C 761    61.508  60.383   4.769  1.00 31.26    6
ATOM    9327   CG   PHE C 761    60.546  60.138   3.634  1.00 29.23    6
ATOM    9328   CD1  PHE C 761    59.374  60.875   3.517  1.00 28.64    6
ATOM    9329   CD2  PHE C 761    60.804  59.155   2.695  1.00 27.90    6
ATOM    9330   CE1  PHE C 761    58.473  60.632   2.479  1.00 27.46    6
ATOM    9331   CE2  PHE C 761    59.909  58.908   1.660  1.00 26.39    6
ATOM    9332   CZ   PHE C 761    58.741  59.648   1.553  1.00 26.21    6
ATOM    9333   C    PHE C 761    62.113  59.749   7.123  1.00 34.39    6
ATOM    9334   O    PHE C 761    62.434  58.597   7.443  1.00 32.45    8
ATOM    9335   N    LYS C 762    62.719  60.846   7.574  1.00 75.69    7
ATOM    9336   CA   LYS C 762    63.852  60.837   8.497  1.00 80.19    6
ATOM    9337   CB   LYS C 762    63.389  61.236   9.902  1.00104.57    6
ATOM    9338   CG   LYS C 762    62.855  62.659   9.997  1.00105.65    6
ATOM    9339   CD   LYS C 762    62.386  62.983  11.407  1.00106.46    6
ATOM    9340   CE   LYS C 762    61.668  64.323  11.467  1.00107.14    6
ATOM    9341   NZ   LYS C 762    61.006  64.553  12.784  1.00107.16    7
ATOM    9342   C    LYS C 762    64.619  59.520   8.560  1.00 82.20    6
ATOM    9343   O    LYS C 762    64.104  58.507   9.033  1.00 82.18    8
```

167

```
ATOM    9344  N    GLY C 763      65.858  59.552   8.078  1.00 98.12      7
ATOM    9345  CA   GLY C 763      66.694  58.368   8.091  1.00100.72      6
ATOM    9346  C    GLY C 763      67.747  58.497   9.169  1.00102.72      6
ATOM    9347  O    GLY C 763      68.768  59.149   8.966  1.00102.66      8
ATOM    9348  N    GLU C 764      67.496  57.875  10.317  1.00155.30      7
ATOM    9349  CA   GLU C 764      68.412  57.927  11.453  1.00157.88      6
ATOM    9350  CB   GLU C 764      67.652  57.620  12.746  1.00 99.28      6
ATOM    9351  CG   GLU C 764      66.577  58.642  13.111  1.00 98.82      6
ATOM    9352  CD   GLU C 764      65.591  58.895  11.987  1.00 98.23      6
ATOM    9353  OE1  GLU C 764      65.826  59.815  11.173  1.00 97.44      8
ATOM    9354  OE2  GLU C 764      64.587  58.160  11.913  1.00 97.72      8
ATOM    9355  C    GLU C 764      69.590  56.965  11.316  1.00159.07      6
ATOM    9356  O    GLU C 764      70.739  57.339  11.558  1.00159.14      8
ATOM    9357  N    GLN C 765      69.297  55.726  10.935  1.00 78.66      7
ATOM    9358  CA   GLN C 765      70.331  54.709  10.774  1.00 79.59      6
ATOM    9359  CB   GLN C 765      70.469  53.906  12.070  1.00174.48      6
ATOM    9360  CG   GLN C 765      70.760  54.750  13.303  1.00175.53      6
ATOM    9361  CD   GLN C 765      70.693  53.951  14.593  1.00176.86      6
ATOM    9362  OE1  GLN C 765      71.366  52.931  14.740  1.00176.70      8
ATOM    9363  NE2  GLN C 765      69.879  54.416  15.537  1.00177.18      7
ATOM    9364  C    GLN C 765      69.999  53.752   9.629  1.00 79.76      6
ATOM    9365  O    GLN C 765      68.836  53.594   9.254  1.00 79.42      8
ATOM    9366  N    GLU C 766      71.027  53.123   9.072  1.00 83.53      7
ATOM    9367  CA   GLU C 766      70.842  52.155   7.996  1.00 84.28      6
ATOM    9368  CB   GLU C 766      71.962  52.291   6.963  1.00112.35      6
ATOM    9369  CG   GLU C 766      71.891  53.564   6.134  1.00114.45      6
ATOM    9370  CD   GLU C 766      70.773  53.524   5.105  1.00115.73      6
ATOM    9371  OE1  GLU C 766      70.506  54.562   4.457  1.00116.02      8
ATOM    9372  OE2  GLU C 766      70.166  52.446   4.938  1.00116.55      8
ATOM    9373  C    GLU C 766      70.891  50.774   8.649  1.00 84.41      6
ATOM    9374  O    GLU C 766      71.949  50.337   9.101  1.00 84.45      8
ATOM    9375  N    PRO C 767      69.746  50.069   8.710  1.00 84.90      7
ATOM    9376  CD   PRO C 767      68.476  50.357   8.019  1.00102.93      6
ATOM    9377  CA   PRO C 767      69.696  48.740   9.325  1.00 85.00      6
ATOM    9378  CB   PRO C 767      68.218  48.371   9.223  1.00102.04      6
ATOM    9379  CG   PRO C 767      67.835  48.974   7.919  1.00102.18      6
ATOM    9380  C    PRO C 767      70.585  47.725   8.625  1.00 85.38      6
ATOM    9381  O    PRO C 767      70.357  47.389   7.461  1.00 85.98      8
ATOM    9382  N    SER C 768      71.600  47.242   9.335  1.00120.88      7
ATOM    9383  CA   SER C 768      72.503  46.245   8.777  1.00121.38      6
ATOM    9384  CB   SER C 768      73.617  45.907   9.765  1.00 93.71      6
ATOM    9385  OG   SER C 768      73.150  44.975  10.726  1.00 93.67      8
ATOM    9386  C    SER C 768      71.630  45.024   8.602  1.00121.74      6
ATOM    9387  O    SER C 768      70.459  45.044   8.973  1.00121.95      8
ATOM    9388  N    PRO C 769      72.179  43.938   8.045  1.00102.93      7
ATOM    9389  CD   PRO C 769      73.580  43.580   7.766  1.00 89.35      6
ATOM    9390  CA   PRO C 769      71.308  42.773   7.898  1.00103.50      6
ATOM    9391  CB   PRO C 769      72.210  41.762   7.207  1.00 90.02      6
ATOM    9392  CG   PRO C 769      73.538  42.063   7.836  1.00 90.05      6
ATOM    9393  C    PRO C 769      70.904  42.325   9.298  1.00104.29      6
ATOM    9394  O    PRO C 769      70.813  43.147  10.216  1.00104.46      8
ATOM    9395  N    GLU C 770      70.690  41.027   9.471  1.00155.25      7
ATOM    9396  CA   GLU C 770      70.296  40.510  10.772  1.00155.10      6
ATOM    9397  CB   GLU C 770      71.214  41.065  11.867  1.00 64.96      6
ATOM    9398  CG   GLU C 770      72.702  41.012  11.532  1.00 63.46      6
ATOM    9399  CD   GLU C 770      73.562  41.751  12.540  1.00 61.50      6
```

168

```
ATOM    9400  OE1 GLU C 770      73.340  42.962  12.737  1.00 60.08      8
ATOM    9401  OE2 GLU C 770      74.463  41.125  13.136  1.00 61.22      8
ATOM    9402  C   GLU C 770      68.872  40.986  11.008  1.00155.66      6
ATOM    9403  O   GLU C 770      67.985  40.196  11.325  1.00156.68      8
ATOM    9404  N   GLU C 771      68.662  42.290  10.851  1.00 47.62      7
ATOM    9405  CA  GLU C 771      67.345  42.874  11.026  1.00 47.75      6
ATOM    9406  CB  GLU C 771      67.452  44.363  11.354  1.00183.49      6
ATOM    9407  CG  GLU C 771      67.730  44.639  12.822  1.00184.01      6
ATOM    9408  CD  GLU C 771      67.770  46.118  13.139  1.00184.75      6
ATOM    9409  OE1 GLU C 771      66.836  46.841  12.733  1.00185.21      8
ATOM    9410  OE2 GLU C 771      68.732  46.559  13.801  1.00185.18      8
ATOM    9411  C   GLU C 771      66.548  42.670   9.752  1.00 47.79      6
ATOM    9412  O   GLU C 771      65.551  41.960   9.757  1.00 46.93      8
ATOM    9413  N   ARG C 772      66.989  43.275   8.655  1.00 97.85      7
ATOM    9414  CA  ARG C 772      66.276  43.119   7.393  1.00 99.27      6
ATOM    9415  CB  ARG C 772      67.123  43.650   6.232  1.00195.76      6
ATOM    9416  CG  ARG C 772      66.331  44.148   5.011  1.00198.00      6
ATOM    9417  CD  ARG C 772      65.582  43.039   4.275  1.00198.91      6
ATOM    9418  NE  ARG C 772      65.100  43.490   2.970  1.00198.07      7
ATOM    9419  CZ  ARG C 772      64.426  42.726   2.116  1.00197.88      6
ATOM    9420  NH1 ARG C 772      64.148  41.468   2.429  1.00198.35      7
ATOM    9421  NH2 ARG C 772      64.040  43.214   0.945  1.00197.11      7
ATOM    9422  C   ARG C 772      65.996  41.629   7.212  1.00 98.44      6
ATOM    9423  O   ARG C 772      65.008  41.244   6.586  1.00 97.98      8
ATOM    9424  N   LEU C 773      66.873  40.796   7.770  1.00 84.36      7
ATOM    9425  CA  LEU C 773      66.703  39.353   7.685  1.00 83.03      6
ATOM    9426  CB  LEU C 773      67.942  38.613   8.189  1.00 67.30      6
ATOM    9427  CG  LEU C 773      67.775  37.087   8.242  1.00 66.86      6
ATOM    9428  CD1 LEU C 773      67.151  36.597   6.940  1.00 66.68      6
ATOM    9429  CD2 LEU C 773      69.126  36.418   8.494  1.00 67.40      6
ATOM    9430  C   LEU C 773      65.517  38.983   8.543  1.00 82.47      6
ATOM    9431  O   LEU C 773      64.527  38.458   8.046  1.00 82.83      8
ATOM    9432  N   LEU C 774      65.616  39.240   9.841  1.00127.21      7
ATOM    9433  CA  LEU C 774      64.493  38.937  10.705  1.00126.02      6
ATOM    9434  CB  LEU C 774      64.682  39.538  12.100  1.00 90.56      6
ATOM    9435  CG  LEU C 774      65.899  39.062  12.892  1.00 90.26      6
ATOM    9436  CD1 LEU C 774      65.866  39.621  14.300  1.00 90.04      6
ATOM    9437  CD2 LEU C 774      65.901  37.557  12.932  1.00 89.38      6
ATOM    9438  C   LEU C 774      63.335  39.617   9.999  1.00125.72      6
ATOM    9439  O   LEU C 774      62.316  38.988   9.712  1.00127.26      8
ATOM    9440  N   ALA C 775      63.530  40.899   9.686  1.00 31.75      7
ATOM    9441  CA  ALA C 775      62.523  41.699   9.000  1.00 30.14      6
ATOM    9442  CB  ALA C 775      63.152  42.977   8.445  1.00 97.68      6
ATOM    9443  C   ALA C 775      61.918  40.862   7.875  1.00 29.04      6
ATOM    9444  O   ALA C 775      60.707  40.584   7.846  1.00 27.53      8
ATOM    9445  N   SER C 776      62.775  40.443   6.954  1.00 69.63      7
ATOM    9446  CA  SER C 776      62.313  39.626   5.857  1.00 70.01      6
ATOM    9447  CB  SER C 776      63.491  39.198   4.970  1.00208.87      6
ATOM    9448  OG  SER C 776      64.495  38.524   5.708  1.00208.87      8
ATOM    9449  C   SER C 776      61.636  38.419   6.478  1.00 68.77      6
ATOM    9450  O   SER C 776      60.417  38.273   6.397  1.00 68.62      8
ATOM    9451  N   ILE C 777      62.437  37.585   7.134  1.00 54.34      7
ATOM    9452  CA  ILE C 777      61.944  36.376   7.766  1.00 54.13      6
ATOM    9453  CB  ILE C 777      62.918  35.857   8.808  1.00 88.03      6
ATOM    9454  CG2 ILE C 777      62.315  34.659   9.513  1.00 87.22      6
ATOM    9455  CG1 ILE C 777      64.228  35.474   8.124  1.00 89.30      6
```

169

```
ATOM   9456  CD1 ILE C 777      65.262  34.896   9.054  1.00 91.23      6
ATOM   9457  C   ILE C 777      60.602  36.587   8.424  1.00 53.63      6
ATOM   9458  O   ILE C 777      59.571  36.209   7.874  1.00 54.38      8
ATOM   9459  N   PHE C 778      60.612  37.191   9.600  1.00 80.03      7
ATOM   9460  CA  PHE C 778      59.379  37.447  10.317  1.00 80.08      6
ATOM   9461  CB  PHE C 778      59.698  37.795  11.767  1.00 79.43      6
ATOM   9462  CG  PHE C 778      60.573  36.779  12.428  1.00 79.06      6
ATOM   9463  CD1 PHE C 778      61.896  36.612  12.026  1.00 78.85      6
ATOM   9464  CD2 PHE C 778      60.059  35.923  13.386  1.00 78.93      6
ATOM   9465  CE1 PHE C 778      62.682  35.605  12.562  1.00 78.25      6
ATOM   9466  CE2 PHE C 778      60.844  34.912  13.927  1.00 78.31      6
ATOM   9467  CZ  PHE C 778      62.153  34.753  13.511  1.00 77.66      6
ATOM   9468  C   PHE C 778      58.620  38.571   9.637  1.00 81.48      6
ATOM   9469  O   PHE C 778      58.211  39.530  10.287  1.00 82.69      8
ATOM   9470  N   GLY C 779      58.451  38.428   8.319  1.00 83.84      7
ATOM   9471  CA  GLY C 779      57.738  39.394   7.496  1.00 85.02      6
ATOM   9472  C   GLY C 779      57.593  40.754   8.133  1.00 86.05      6
ATOM   9473  O   GLY C 779      56.496  41.308   8.233  1.00 86.31      8
ATOM   9474  N   ALA C 780      58.721  41.295   8.563  1.00 58.08      7
ATOM   9475  CA  ALA C 780      58.741  42.580   9.218  1.00 59.13      6
ATOM   9476  CB  ALA C 780      59.834  42.595  10.254  1.00 88.73      6
ATOM   9477  C   ALA C 780      58.934  43.708   8.224  1.00 60.39      6
ATOM   9478  O   ALA C 780      59.800  44.565   8.403  1.00 61.00      8
ATOM   9479  N   ALA C 781      58.114  43.694   7.177  1.00105.56      7
ATOM   9480  CA  ALA C 781      58.147  44.706   6.126  1.00106.36      6
ATOM   9481  CB  ALA C 781      56.728  45.016   5.670  1.00152.25      6
ATOM   9482  C   ALA C 781      58.829  45.983   6.597  1.00106.65      6
ATOM   9483  O   ALA C 781      58.381  46.615   7.554  1.00106.54      8
ATOM   9484  N   ALA C 782      59.913  46.354   5.922  1.00 90.59      7
ATOM   9485  CA  ALA C 782      60.665  47.552   6.276  1.00 91.46      6
ATOM   9486  CB  ALA C 782      61.874  47.695   5.358  1.00 46.35      6
ATOM   9487  C   ALA C 782      59.811  48.822   6.231  1.00 92.22      6
ATOM   9488  O   ALA C 782      58.659  48.805   5.783  1.00 92.80      8
ATOM   9489  N   ARG C 783      60.390  49.925   6.695  1.00127.32      7
ATOM   9490  CA  ARG C 783      59.688  51.201   6.735  1.00127.42      6
ATOM   9491  CB  ARG C 783      59.027  51.374   8.103  1.00132.46      6
ATOM   9492  CG  ARG C 783      60.036  51.446   9.247  1.00133.87      6
ATOM   9493  CD  ARG C 783      59.374  51.400  10.617  1.00134.71      6
ATOM   9494  NE  ARG C 783      60.363  51.483  11.688  1.00135.25      7
ATOM   9495  CZ  ARG C 783      60.092  51.290  12.974  1.00135.83      6
ATOM   9496  NH1 ARG C 783      58.860  51.001  13.358  1.00135.68      7
ATOM   9497  NH2 ARG C 783      61.055  51.387  13.879  1.00136.98      7
ATOM   9498  C   ARG C 783      60.638  52.370   6.487  1.00126.33      6
ATOM   9499  O   ARG C 783      61.831  52.280   6.768  1.00125.68      8
ATOM   9500  N   ASP C 784      60.094  53.462   5.961  1.00 96.81      7
ATOM   9501  CA  ASP C 784      60.858  54.677   5.686  1.00 96.62      6
ATOM   9502  CB  ASP C 784      61.078  54.858   4.179  1.00165.71      6
ATOM   9503  CG  ASP C 784      62.224  54.027   3.642  1.00167.54      6
ATOM   9504  OD1 ASP C 784      63.387  54.298   4.011  1.00168.36      8
ATOM   9505  OD2 ASP C 784      61.961  53.106   2.843  1.00168.28      8
ATOM   9506  C   ASP C 784      60.048  55.864   6.198  1.00 95.97      6
ATOM   9507  O   ASP C 784      60.163  56.973   5.671  1.00 96.30      8
ATOM   9508  N   VAL C 785      59.242  55.640   7.233  1.00 84.48      7
ATOM   9509  CA  VAL C 785      58.395  56.707   7.740  1.00 81.77      6
ATOM   9510  CB  VAL C 785      57.065  56.674   6.992  1.00 76.38      6
ATOM   9511  CG1 VAL C 785      55.991  57.305   7.824  1.00 78.53      6
```

170

```
ATOM    9512  CG2 VAL C 785      57.208  57.395   5.674  1.00 75.81      6
ATOM    9513  C   VAL C 785      58.108  56.759   9.242  1.00 80.52      6
ATOM    9514  O   VAL C 785      57.859  55.729   9.880  1.00 80.39      8
ATOM    9515  N   LYS C 786      58.127  57.983   9.780  1.00 65.91      7
ATOM    9516  CA  LYS C 786      57.851  58.248  11.196  1.00 64.98      6
ATOM    9517  CB  LYS C 786      58.651  59.457  11.694  1.00 87.58      6
ATOM    9518  CG  LYS C 786      60.119  59.203  11.974  1.00 88.11      6
ATOM    9519  CD  LYS C 786      60.747  60.411  12.669  1.00 89.06      6
ATOM    9520  CE  LYS C 786      62.174  60.132  13.132  1.00 89.59      6
ATOM    9521  NZ  LYS C 786      62.786  61.311  13.811  1.00 90.44      7
ATOM    9522  C   LYS C 786      56.364  58.542  11.394  1.00 64.50      6
ATOM    9523  O   LYS C 786      55.696  59.045  10.485  1.00 64.82      8
ATOM    9524  N   ASP C 787      55.859  58.258  12.592  1.00 78.90      7
ATOM    9525  CA  ASP C 787      54.447  58.472  12.904  1.00 77.08      6
ATOM    9526  CB  ASP C 787      54.040  57.595  14.095  1.00 91.21      6
ATOM    9527  CG  ASP C 787      52.530  57.548  14.312  1.00 90.98      6
ATOM    9528  OD1 ASP C 787      51.926  58.575  14.689  1.00 90.77      8
ATOM    9529  OD2 ASP C 787      51.942  56.467  14.105  1.00 91.64      8
ATOM    9530  C   ASP C 787      54.098  59.924  13.206  1.00 76.50      6
ATOM    9531  O   ASP C 787      53.005  60.204  13.686  1.00 77.65      8
ATOM    9532  N   THR C 788      55.012  60.847  12.927  1.00 93.42      7
ATOM    9533  CA  THR C 788      54.758  62.264  13.191  1.00 91.67      6
ATOM    9534  CB  THR C 788      55.735  63.169  12.432  1.00 95.91      6
ATOM    9535  OG1 THR C 788      55.235  64.511  12.437  1.00 96.03      8
ATOM    9536  CG2 THR C 788      55.890  62.704  10.994  1.00 96.48      6
ATOM    9537  C   THR C 788      53.349  62.692  12.798  1.00 91.65      6
ATOM    9538  O   THR C 788      53.109  63.059  11.651  1.00 92.72      8
ATOM    9539  N   SER C 789      52.422  62.653  13.753  1.00 56.46      7
ATOM    9540  CA  SER C 789      51.044  63.045  13.489  1.00 54.25      6
ATOM    9541  CB  SER C 789      50.082  62.041  14.120  1.00115.65      6
ATOM    9542  OG  SER C 789      50.305  60.739  13.613  1.00119.05      8
ATOM    9543  C   SER C 789      50.805  64.429  14.074  1.00 52.20      6
ATOM    9544  O   SER C 789      51.716  65.255  14.114  1.00 51.55      8
ATOM    9545  N   LEU C 790      49.575  64.683  14.510  1.00 68.48      7
ATOM    9546  CA  LEU C 790      49.218  65.962  15.107  1.00 66.87      6
ATOM    9547  CB  LEU C 790      48.061  66.615  14.381  1.00 35.44      6
ATOM    9548  CG  LEU C 790      47.605  67.806  15.206  1.00 34.54      6
ATOM    9549  CD1 LEU C 790      48.772  68.750  15.359  1.00 33.71      6
ATOM    9550  CD2 LEU C 790      46.421  68.493  14.570  1.00 34.41      6
ATOM    9551  C   LEU C 790      48.801  65.764  16.543  1.00 67.04      6
ATOM    9552  O   LEU C 790      49.280  66.458  17.438  1.00 67.36      8
ATOM    9553  N   ARG C 791      47.880  64.824  16.737  1.00 86.02      7
ATOM    9554  CA  ARG C 791      47.346  64.460  18.049  1.00 84.48      6
ATOM    9555  CB  ARG C 791      48.308  63.509  18.758  1.00 62.56      6
ATOM    9556  CG  ARG C 791      48.452  62.201  18.048  1.00 63.59      6
ATOM    9557  CD  ARG C 791      49.277  61.219  18.835  1.00 65.39      6
ATOM    9558  NE  ARG C 791      49.596  60.070  17.997  1.00 67.02      7
ATOM    9559  CZ  ARG C 791      50.304  59.025  18.395  1.00 68.43      6
ATOM    9560  NH1 ARG C 791      50.773  58.972  19.633  1.00 69.44      7
ATOM    9561  NH2 ARG C 791      50.552  58.044  17.546  1.00 69.24      7
ATOM    9562  C   ARG C 791      46.983  65.597  18.991  1.00 82.74      6
ATOM    9563  O   ARG C 791      47.699  66.590  19.105  1.00 84.11      8
ATOM    9564  N   VAL C 792      45.865  65.437  19.683  1.00 13.87      7
ATOM    9565  CA  VAL C 792      45.439  66.461  20.602  1.00 13.87      6
ATOM    9566  CB  VAL C 792      43.941  66.366  20.889  1.00 38.63      6
ATOM    9567  CG1 VAL C 792      43.550  67.385  21.922  1.00 39.04      6
```

171

```
ATOM    9568  CG2 VAL C 792      43.178  66.652  19.617  1.00 38.69      6
ATOM    9569  C   VAL C 792      46.238  66.392  21.889  1.00 13.87      6
ATOM    9570  O   VAL C 792      46.291  65.360  22.550  1.00 13.87      8
ATOM    9571  N   PRO C 793      46.883  67.512  22.246  1.00 54.22      7
ATOM    9572  CD  PRO C 793      46.682  68.792  21.547  1.00 30.05      6
ATOM    9573  CA  PRO C 793      47.720  67.718  23.425  1.00 55.90      6
ATOM    9574  CB  PRO C 793      48.136  69.176  23.294  1.00 31.06      6
ATOM    9575  CG  PRO C 793      46.986  69.784  22.623  1.00 29.13      6
ATOM    9576  C   PRO C 793      46.960  67.457  24.694  1.00 58.23      6
ATOM    9577  O   PRO C 793      45.821  67.016  24.658  1.00 60.69      8
ATOM    9578  N   PRO C 794      47.585  67.717  25.842  1.00 54.15      7
ATOM    9579  CD  PRO C 794      49.024  67.961  26.043  1.00 99.87      6
ATOM    9580  CA  PRO C 794      46.913  67.493  27.121  1.00 54.81      6
ATOM    9581  CB  PRO C 794      47.929  68.014  28.123  1.00101.03      6
ATOM    9582  CG  PRO C 794      49.220  67.584  27.492  1.00 99.96      6
ATOM    9583  C   PRO C 794      45.539  68.146  27.274  1.00 55.50      6
ATOM    9584  O   PRO C 794      44.783  67.769  28.161  1.00 56.42      8
ATOM    9585  N   GLY C 795      45.214  69.116  26.424  1.00 89.83      7
ATOM    9586  CA  GLY C 795      43.911  69.759  26.515  1.00 90.80      6
ATOM    9587  C   GLY C 795      42.792  68.770  26.223  1.00 91.15      6
ATOM    9588  O   GLY C 795      42.706  68.252  25.115  1.00 90.96      8
ATOM    9589  N   GLU C 796      41.933  68.522  27.213  1.00162.13      7
ATOM    9590  CA  GLU C 796      40.812  67.573  27.114  1.00160.60      6
ATOM    9591  CB  GLU C 796      39.703  67.977  28.102  1.00 68.33      6
ATOM    9592  CG  GLU C 796      38.591  66.940  28.304  1.00 68.24      6
ATOM    9593  CD  GLU C 796      37.365  67.177  27.435  1.00 69.47      6
ATOM    9594  OE1 GLU C 796      36.639  68.173  27.662  1.00 69.13      8
ATOM    9595  OE2 GLU C 796      37.123  66.359  26.523  1.00 72.01      8
ATOM    9596  C   GLU C 796      40.192  67.320  25.732  1.00159.42      6
ATOM    9597  O   GLU C 796      39.453  66.353  25.559  1.00159.93      8
ATOM    9598  N   GLY C 797      40.481  68.174  24.755  1.00 54.40      7
ATOM    9599  CA  GLY C 797      39.932  67.974  23.429  1.00 51.86      6
ATOM    9600  C   GLY C 797      38.481  68.379  23.354  1.00 51.20      6
ATOM    9601  O   GLY C 797      38.108  69.381  23.935  1.00 53.71      8
ATOM    9602  N   GLY C 798      37.664  67.606  22.646  1.00 30.90      7
ATOM    9603  CA  GLY C 798      36.249  67.919  22.510  1.00 26.75      6
ATOM    9604  C   GLY C 798      35.797  67.791  21.063  1.00 24.13      6
ATOM    9605  O   GLY C 798      36.615  67.829  20.148  1.00 24.00      8
ATOM    9606  N   ILE C 799      34.496  67.640  20.849  1.00 52.65      7
ATOM    9607  CA  ILE C 799      33.932  67.500  19.508  1.00 51.38      6
ATOM    9608  CB  ILE C 799      32.432  67.843  19.510  1.00 37.82      6
ATOM    9609  CG2 ILE C 799      31.860  67.640  18.135  1.00 38.21      6
ATOM    9610  CG1 ILE C 799      31.685  66.932  20.482  1.00 37.62      6
ATOM    9611  CD1 ILE C 799      30.228  67.298  20.656  1.00 38.08      6
ATOM    9612  C   ILE C 799      34.631  68.369  18.464  1.00 51.09      6
ATOM    9613  O   ILE C 799      34.909  69.542  18.708  1.00 52.47      8
ATOM    9614  N   VAL C 800      34.891  67.777  17.298  1.00 24.03      7
ATOM    9615  CA  VAL C 800      35.576  68.433  16.189  1.00 22.71      6
ATOM    9616  CB  VAL C 800      36.247  67.384  15.296  1.00 41.32      6
ATOM    9617  CG1 VAL C 800      36.777  68.022  14.036  1.00 41.89      6
ATOM    9618  CG2 VAL C 800      37.387  66.740  16.050  1.00 43.40      6
ATOM    9619  C   VAL C 800      34.703  69.317  15.317  1.00 21.31      6
ATOM    9620  O   VAL C 800      34.143  68.858  14.332  1.00 21.71      8
ATOM    9621  N   VAL C 801      34.635  70.599  15.658  1.00 31.00      7
ATOM    9622  CA  VAL C 801      33.813  71.567  14.934  1.00 31.22      6
ATOM    9623  CB  VAL C 801      33.840  72.913  15.645  1.00 24.39      6
```

172

```
ATOM    9624  CG1 VAL C 801      33.430  74.043  14.697  1.00 23.36       6
ATOM    9625  CG2 VAL C 801      32.909  72.843  16.824  1.00 22.94       6
ATOM    9626  C   VAL C 801      34.071  71.802  13.455  1.00 33.09       6
ATOM    9627  O   VAL C 801      33.157  72.207  12.736  1.00 33.79       8
ATOM    9628  N   GLY C 802      35.295  71.566  12.992  1.00 57.16       7
ATOM    9629  CA  GLY C 802      35.581  71.771  11.579  1.00 59.11       6
ATOM    9630  C   GLY C 802      37.051  71.803  11.216  1.00 60.54       6
ATOM    9631  O   GLY C 802      37.899  72.121  12.050  1.00 61.00       8
ATOM    9632  N   ARG C 803      37.352  71.471   9.966  1.00 44.92       7
ATOM    9633  CA  ARG C 803      38.727  71.469   9.486  1.00 46.07       6
ATOM    9634  CB  ARG C 803      39.163  70.040   9.156  1.00 68.65       6
ATOM    9635  CG  ARG C 803      38.034  69.122   8.717  1.00 70.00       6
ATOM    9636  CD  ARG C 803      37.239  69.702   7.543  1.00 72.16       6
ATOM    9637  NE  ARG C 803      36.271  68.746   6.991  1.00 74.41       7
ATOM    9638  CZ  ARG C 803      35.474  68.984   5.946  1.00 74.85       6
ATOM    9639  NH1 ARG C 803      35.510  70.155   5.320  1.00 75.42       7
ATOM    9640  NH2 ARG C 803      34.645  68.041   5.516  1.00 75.93       7
ATOM    9641  C   ARG C 803      38.921  72.382   8.268  1.00 46.28       6
ATOM    9642  O   ARG C 803      37.956  72.907   7.710  1.00 45.62       8
ATOM    9643  N   LEU C 804      40.174  72.576   7.870  1.00 22.15       7
ATOM    9644  CA  LEU C 804      40.498  73.426   6.734  1.00 25.08       6
ATOM    9645  CB  LEU C 804      40.581  74.866   7.183  1.00 42.19       6
ATOM    9646  CG  LEU C 804      40.918  75.795   6.034  1.00 43.18       6
ATOM    9647  CD1 LEU C 804      39.626  76.070   5.291  1.00 42.77       6
ATOM    9648  CD2 LEU C 804      41.565  77.089   6.544  1.00 44.40       6
ATOM    9649  C   LEU C 804      41.847  73.009   6.153  1.00 27.39       6
ATOM    9650  O   LEU C 804      42.805  72.771   6.905  1.00 27.47       8
ATOM    9651  N   ARG C 805      41.922  72.955   4.820  1.00 65.05       7
ATOM    9652  CA  ARG C 805      43.128  72.523   4.108  1.00 67.96       6
ATOM    9653  CB  ARG C 805      42.804  71.215   3.374  1.00164.73       6
ATOM    9654  CG  ARG C 805      43.967  70.269   3.112  1.00168.40       6
ATOM    9655  CD  ARG C 805      43.439  68.982   2.469  1.00171.64       6
ATOM    9656  NE  ARG C 805      44.487  68.007   2.178  1.00173.63       7
ATOM    9657  CZ  ARG C 805      44.283  66.838   1.574  1.00174.68       6
ATOM    9658  NH1 ARG C 805      43.063  66.482   1.187  1.00175.14       7
ATOM    9659  NH2 ARG C 805      45.302  66.018   1.354  1.00173.89       7
ATOM    9660  C   ARG C 805      43.670  73.568   3.115  1.00 68.14       6
ATOM    9661  O   ARG C 805      42.946  74.033   2.232  1.00 68.35       8
ATOM    9662  N   LEU C 806      44.950  73.919   3.262  1.00 73.86       7
ATOM    9663  CA  LEU C 806      45.622  74.908   2.402  1.00 75.14       6
ATOM    9664  CB  LEU C 806      45.871  76.201   3.183  1.00128.92       6
ATOM    9665  CG  LEU C 806      44.675  77.043   3.619  1.00132.18       6
ATOM    9666  CD1 LEU C 806      45.147  78.165   4.533  1.00132.84       6
ATOM    9667  CD2 LEU C 806      43.977  77.604   2.390  1.00133.73       6
ATOM    9668  C   LEU C 806      46.972  74.417   1.858  1.00 74.67       6
ATOM    9669  O   LEU C 806      47.906  74.199   2.625  1.00 75.32       8
ATOM    9670  N   ARG C 807      47.092  74.273   0.542  1.00 48.38       7
ATOM    9671  CA  ARG C 807      48.343  73.814  -0.042  1.00 46.74       6
ATOM    9672  CB  ARG C 807      48.237  72.331  -0.397  1.00182.04       6
ATOM    9673  CG  ARG C 807      47.154  72.037  -1.415  1.00186.27       6
ATOM    9674  CD  ARG C 807      47.084  70.565  -1.774  1.00191.33       6
ATOM    9675  NE  ARG C 807      46.168  70.349  -2.890  1.00197.20       7
ATOM    9676  CZ  ARG C 807      45.906  69.164  -3.434  1.00198.77       6
ATOM    9677  NH1 ARG C 807      46.489  68.067  -2.967  1.00200.22       7
ATOM    9678  NH2 ARG C 807      45.063  69.081  -4.456  1.00199.20       7
ATOM    9679  C   ARG C 807      48.715  74.609  -1.290  1.00 43.90       6
```

173

```
ATOM    9680  O    ARG C 807      47.857  74.899  -2.119  1.00  43.25      8
ATOM    9681  N    ARG C 808      49.998  74.947  -1.423  1.00  21.30      7
ATOM    9682  CA   ARG C 808      50.489  75.698  -2.575  1.00  18.77      6
ATOM    9683  CB   ARG C 808      52.018  75.756  -2.596  1.00  43.57      6
ATOM    9684  CG   ARG C 808      52.680  74.427  -2.915  1.00  42.55      6
ATOM    9685  CD   ARG C 808      54.204  74.528  -3.006  1.00  42.16      6
ATOM    9686  NE   ARG C 808      54.838  73.290  -2.541  1.00  43.97      7
ATOM    9687  CZ   ARG C 808      56.149  73.063  -2.530  1.00  44.91      6
ATOM    9688  NH1  ARG C 808      56.993  73.991  -2.969  1.00  45.22      7
ATOM    9689  NH2  ARG C 808      56.616  71.908  -2.060  1.00  45.87      7
ATOM    9690  C    ARG C 808      50.011  75.034  -3.847  1.00  18.28      6
ATOM    9691  O    ARG C 808      49.821  73.821  -3.895  1.00  16.07      8
ATOM    9692  N    GLY C 809      49.856  75.838  -4.889  1.00  68.74      7
ATOM    9693  CA   GLY C 809      49.364  75.329  -6.149  1.00  70.46      6
ATOM    9694  C    GLY C 809      47.946  75.832  -6.122  1.00  71.55      6
ATOM    9695  O    GLY C 809      47.315  76.039  -7.154  1.00  73.19      8
ATOM    9696  N    ASP C 810      47.461  76.032  -4.900  1.00  57.25      7
ATOM    9697  CA   ASP C 810      46.123  76.549  -4.644  1.00  57.46      6
ATOM    9698  CB   ASP C 810      45.809  76.450  -3.145  1.00  46.40      6
ATOM    9699  CG   ASP C 810      44.543  75.679  -2.850  1.00  46.28      6
ATOM    9700  OD1  ASP C 810      43.542  75.868  -3.567  1.00  47.68      8
ATOM    9701  OD2  ASP C 810      44.538  74.894  -1.881  1.00  45.83      8
ATOM    9702  C    ASP C 810      46.220  78.022  -5.040  1.00  58.13      6
ATOM    9703  O    ASP C 810      47.312  78.501  -5.352  1.00  58.06      8
ATOM    9704  N    PRO C 811      45.093  78.757  -5.028  1.00  83.43      7
ATOM    9705  CD   PRO C 811      43.732  78.324  -4.698  1.00  44.68      6
ATOM    9706  CA   PRO C 811      45.070  80.177  -5.382  1.00  85.22      6
ATOM    9707  CB   PRO C 811      43.594  80.511  -5.337  1.00  45.44      6
ATOM    9708  CG   PRO C 811      43.115  79.628  -4.272  1.00  44.85      6
ATOM    9709  C    PRO C 811      45.862  81.063  -4.429  1.00  87.07      6
ATOM    9710  O    PRO C 811      46.932  80.684  -3.956  1.00  88.35      8
ATOM    9711  N    GLY C 812      45.311  82.243  -4.153  1.00  91.85      7
ATOM    9712  CA   GLY C 812      45.960  83.213  -3.286  1.00  92.81      6
ATOM    9713  C    GLY C 812      47.067  82.698  -2.386  1.00  91.54      6
ATOM    9714  O    GLY C 812      48.159  83.259  -2.334  1.00  92.22      8
ATOM    9715  N    VAL C 813      46.775  81.612  -1.686  1.00  43.41      7
ATOM    9716  CA   VAL C 813      47.690  80.985  -0.745  1.00  41.37      6
ATOM    9717  CB   VAL C 813      47.395  79.458  -0.647  1.00  26.32      6
ATOM    9718  CG1  VAL C 813      47.752  78.952   0.745  1.00  25.82      6
ATOM    9719  CG2  VAL C 813      45.907  79.178  -0.947  1.00  25.69      6
ATOM    9720  C    VAL C 813      49.189  81.201  -0.995  1.00  41.50      6
ATOM    9721  O    VAL C 813      49.753  80.756  -1.992  1.00  40.43      8
ATOM    9722  N    GLU C 814      49.824  81.919  -0.080  1.00  34.98      7
ATOM    9723  CA   GLU C 814      51.252  82.166  -0.149  1.00  37.19      6
ATOM    9724  CB   GLU C 814      51.558  83.654   0.097  1.00 115.90      6
ATOM    9725  CG   GLU C 814      51.185  84.161   1.496  1.00 119.46      6
ATOM    9726  CD   GLU C 814      51.402  85.658   1.686  1.00 121.07      6
ATOM    9727  OE1  GLU C 814      50.693  86.450   1.033  1.00 122.38      8
ATOM    9728  OE2  GLU C 814      52.277  86.040   2.494  1.00 122.43      8
ATOM    9729  C    GLU C 814      51.717  81.319   1.026  1.00  37.29      6
ATOM    9730  O    GLU C 814      51.220  81.483   2.140  1.00  37.09      8
ATOM    9731  N    LEU C 815      52.637  80.390   0.806  1.00  28.62      7
ATOM    9732  CA   LEU C 815      53.052  79.565   1.931  1.00  29.31      6
ATOM    9733  CB   LEU C 815      52.386  78.192   1.855  1.00  36.74      6
ATOM    9734  CG   LEU C 815      50.882  78.194   1.590  1.00  35.82      6
ATOM    9735  CD1  LEU C 815      50.660  78.503   0.126  1.00  36.39      6
```

174

```
ATOM   9736  CD2 LEU C 815      50.276  76.848   1.918  1.00 35.80       6
ATOM   9737  C   LEU C 815      54.548  79.392   2.070  1.00 30.73       8
ATOM   9738  O   LEU C 815      55.253  79.147   1.092  1.00 29.93       8
ATOM   9739  N   LYS C 816      55.000  79.526   3.317  1.00 99.29       7
ATOM   9740  CA  LYS C 816      56.399  79.400   3.723  1.00101.20       6
ATOM   9741  CB  LYS C 816      56.472  78.895   5.170  1.00129.01       6
ATOM   9742  CG  LYS C 816      57.793  78.249   5.580  1.00130.38       6
ATOM   9743  CD  LYS C 816      58.960  79.214   5.587  1.00131.78       6
ATOM   9744  CE  LYS C 816      60.218  78.526   6.102  1.00132.53       6
ATOM   9745  NZ  LYS C 816      60.544  77.289   5.335  1.00132.71       7
ATOM   9746  C   LYS C 816      57.173  78.474   2.814  1.00101.91       6
ATOM   9747  O   LYS C 816      56.805  77.311   2.639  1.00102.19       8
ATOM   9748  N   PRO C 817      58.267  78.983   2.226  1.00 85.14       7
ATOM   9749  CD  PRO C 817      58.920  80.268   2.522  1.00123.43       6
ATOM   9750  CA  PRO C 817      59.094  78.180   1.322  1.00 85.29       6
ATOM   9751  CB  PRO C 817      60.424  78.942   1.291  1.00124.09       6
ATOM   9752  CG  PRO C 817      60.355  79.875   2.498  1.00124.53       6
ATOM   9753  C   PRO C 817      59.232  76.731   1.774  1.00 85.00       6
ATOM   9754  O   PRO C 817      59.646  76.447   2.905  1.00 84.81       8
ATOM   9755  N   GLY C 818      58.858  75.821   0.881  1.00111.88       7
ATOM   9756  CA  GLY C 818      58.929  74.409   1.189  1.00111.02       6
ATOM   9757  C   GLY C 818      57.614  73.916   1.752  1.00109.73       6
ATOM   9758  O   GLY C 818      57.097  72.879   1.336  1.00110.63       8
ATOM   9759  N   VAL C 819      57.068  74.661   2.704  1.00 88.15       7
ATOM   9760  CA  VAL C 819      55.807  74.284   3.311  1.00 85.63       6
ATOM   9761  CB  VAL C 819      55.234  75.421   4.159  1.00 96.98       6
ATOM   9762  CG1 VAL C 819      53.832  75.072   4.619  1.00 98.99       6
ATOM   9763  CG2 VAL C 819      56.118  75.665   5.344  1.00 96.50       6
ATOM   9764  C   VAL C 819      54.798  73.947   2.232  1.00 83.05       6
ATOM   9765  O   VAL C 819      54.316  74.836   1.536  1.00 82.90       8
ATOM   9766  N   ARG C 820      54.498  72.662   2.080  1.00 43.94       7
ATOM   9767  CA  ARG C 820      53.518  72.215   1.097  1.00 41.90       6
ATOM   9768  CB  ARG C 820      54.029  70.970   0.360  1.00120.94       6
ATOM   9769  CG  ARG C 820      53.111  70.480  -0.758  1.00126.07       6
ATOM   9770  CD  ARG C 820      53.519  69.097  -1.285  1.00129.75       6
ATOM   9771  NE  ARG C 820      52.627  68.640  -2.354  1.00133.10       7
ATOM   9772  CZ  ARG C 820      52.639  67.417  -2.881  1.00134.05       6
ATOM   9773  NH1 ARG C 820      53.497  66.506  -2.442  1.00134.60       7
ATOM   9774  NH2 ARG C 820      51.793  67.102  -3.851  1.00133.74       7
ATOM   9775  C   ARG C 820      52.333  71.859   1.966  1.00 38.35       6
ATOM   9776  O   ARG C 820      52.510  71.210   2.987  1.00 37.36       8
ATOM   9777  N   GLU C 821      51.137  72.293   1.597  1.00 46.48       7
ATOM   9778  CA  GLU C 821      49.968  71.984   2.408  1.00 43.14       6
ATOM   9779  CB  GLU C 821      49.680  70.491   2.335  1.00 22.16       6
ATOM   9780  CG  GLU C 821      48.402  70.105   3.011  1.00 23.51       6
ATOM   9781  CD  GLU C 821      47.944  68.704   2.652  1.00 25.58       6
ATOM   9782  OE1 GLU C 821      48.733  67.751   2.836  1.00 27.22       8
ATOM   9783  OE2 GLU C 821      46.790  68.550   2.190  1.00 25.44       8
ATOM   9784  C   GLU C 821      50.133  72.417   3.879  1.00 41.31       6
ATOM   9785  O   GLU C 821      51.230  72.381   4.422  1.00 41.76       8
ATOM   9786  N   VAL C 822      49.030  72.825   4.511  1.00 32.88       7
ATOM   9787  CA  VAL C 822      49.010  73.290   5.909  1.00 28.33       6
ATOM   9788  CB  VAL C 822      49.221  74.816   5.983  1.00 17.02       6
ATOM   9789  CG1 VAL C 822      49.036  75.311   7.409  1.00 15.41       6
ATOM   9790  CG2 VAL C 822      50.609  75.162   5.471  1.00 15.95       6
ATOM   9791  C   VAL C 822      47.664  72.979   6.559  1.00 26.88       6
```

175

```
ATOM   9792  O    VAL C 822      46.785  73.817   6.583  1.00  28.37      8
ATOM   9793  N    VAL C 823      47.507  71.780   7.095  1.00  24.67      7
ATOM   9794  CA   VAL C 823      46.249  71.378   7.708  1.00  24.23      6
ATOM   9795  CB   VAL C 823      46.308  69.878   8.123  1.00  15.35      6
ATOM   9796  CG1  VAL C 823      45.004  69.435   8.776  1.00  15.07      6
ATOM   9797  CG2  VAL C 823      46.581  69.035   6.912  1.00  16.46      6
ATOM   9798  C    VAL C 823      45.880  72.211   8.937  1.00  25.40      6
ATOM   9799  O    VAL C 823      46.754  72.594   9.729  1.00  26.38      8
ATOM   9800  N    ARG C 824      44.581  72.488   9.081  1.00  37.23      7
ATOM   9801  CA   ARG C 824      44.048  73.217  10.232  1.00  36.42      6
ATOM   9802  CB   ARG C 824      43.706  74.656   9.876  1.00  41.29      6
ATOM   9803  CG   ARG C 824      44.900  75.561   9.769  1.00  41.99      6
ATOM   9804  CD   ARG C 824      44.451  76.955   9.424  1.00  44.29      6
ATOM   9805  NE   ARG C 824      45.567  77.790   9.001  1.00  46.91      7
ATOM   9806  CZ   ARG C 824      45.444  79.061   8.635  1.00  47.62      6
ATOM   9807  NH1  ARG C 824      44.245  79.643   8.642  1.00  48.05      7
ATOM   9808  NH2  ARG C 824      46.520  79.747   8.269  1.00  48.13      7
ATOM   9809  C    ARG C 824      42.784  72.525  10.704  1.00  35.88      6
ATOM   9810  O    ARG C 824      41.932  72.168   9.888  1.00  35.49      8
ATOM   9811  N    VAL C 825      42.664  72.337  12.016  1.00  38.85      7
ATOM   9812  CA   VAL C 825      41.490  71.691  12.593  1.00  36.68      6
ATOM   9813  CB   VAL C 825      41.779  70.208  12.898  1.00  13.87      6
ATOM   9814  CG1  VAL C 825      40.641  69.584  13.710  1.00  13.87      6
ATOM   9815  CG2  VAL C 825      41.939  69.463  11.610  1.00  13.87      6
ATOM   9816  C    VAL C 825      41.003  72.386  13.868  1.00  37.58      6
ATOM   9817  O    VAL C 825      41.771  72.516  14.827  1.00  37.01      8
ATOM   9818  N    PHE C 826      39.734  72.828  13.856  1.00  25.93      7
ATOM   9819  CA   PHE C 826      39.096  73.502  14.994  1.00  24.67      6
ATOM   9820  CB   PHE C 826      38.096  74.543  14.535  1.00  16.41      6
ATOM   9821  CG   PHE C 826      38.639  75.545  13.590  1.00  16.49      6
ATOM   9822  CD1  PHE C 826      39.872  76.125  13.802  1.00  17.42      6
ATOM   9823  CD2  PHE C 826      37.877  75.970  12.515  1.00  16.81      6
ATOM   9824  CE1  PHE C 826      40.345  77.122  12.958  1.00  16.74      6
ATOM   9825  CE2  PHE C 826      38.337  76.962  11.669  1.00  16.62      6
ATOM   9826  CZ   PHE C 826      39.582  77.541  11.897  1.00  17.57      6
ATOM   9827  C    PHE C 826      38.316  72.520  15.854  1.00  25.21      6
ATOM   9828  O    PHE C 826      37.588  71.685  15.325  1.00  24.96      8
ATOM   9829  N    VAL C 827      38.439  72.655  17.174  1.00  27.15      7
ATOM   9830  CA   VAL C 827      37.754  71.785  18.134  1.00  28.02      6
ATOM   9831  CB   VAL C 827      38.748  71.002  18.998  1.00  20.05      6
ATOM   9832  CG1  VAL C 827      38.042  70.373  20.152  1.00  21.05      6
ATOM   9833  CG2  VAL C 827      39.393  69.929  18.192  1.00  22.40      6
ATOM   9834  C    VAL C 827      36.936  72.635  19.073  1.00  29.38      6
ATOM   9835  O    VAL C 827      37.424  73.643  19.548  1.00  32.32      8
ATOM   9836  N    ALA C 828      35.706  72.231  19.358  1.00  23.27      7
ATOM   9837  CA   ALA C 828      34.872  73.011  20.253  1.00  24.00      6
ATOM   9838  CB   ALA C 828      33.423  72.947  19.810  1.00  13.87      6
ATOM   9839  C    ALA C 828      35.015  72.477  21.660  1.00  25.87      6
ATOM   9840  O    ALA C 828      35.602  71.422  21.855  1.00  26.88      8
ATOM   9841  N    GLN C 829      34.468  73.206  22.634  1.00  44.45      7
ATOM   9842  CA   GLN C 829      34.525  72.806  24.042  1.00  46.16      6
ATOM   9843  CB   GLN C 829      35.925  73.080  24.591  1.00  25.13      6
ATOM   9844  CG   GLN C 829      36.639  71.870  25.163  1.00  26.51      6
ATOM   9845  CD   GLN C 829      38.022  72.218  25.698  1.00  27.53      6
ATOM   9846  OE1  GLN C 829      38.787  72.934  25.048  1.00  27.91      8
ATOM   9847  NE2  GLN C 829      38.353  71.700  26.880  1.00  28.79      7
```

176

```
ATOM   9848  C    GLN C 829    33.489  73.524  24.934  1.00  47.54    6
ATOM   9849  O    GLN C 829    33.752  74.611  25.437  1.00  48.43    8
ATOM   9850  N    LYS C 830    32.313  72.930  25.124  1.00  55.30    7
ATOM   9851  CA   LYS C 830    31.291  73.524  25.992  1.00  55.79    6
ATOM   9852  CB   LYS C 830    30.049  72.645  26.046  1.00  44.08    6
ATOM   9853  CG   LYS C 830    28.730  73.330  25.813  1.00  44.08    6
ATOM   9854  CD   LYS C 830    27.638  72.319  26.135  1.00  44.95    6
ATOM   9855  CE   LYS C 830    26.243  72.782  25.733  1.00  44.96    6
ATOM   9856  NZ   LYS C 830    25.185  71.813  26.191  1.00  46.02    7
ATOM   9857  C    LYS C 830    31.990  73.449  27.333  1.00  56.00    6
ATOM   9858  O    LYS C 830    32.352  72.356  27.776  1.00  57.65    8
ATOM   9859  N    ARG C 831    32.164  74.586  27.995  1.00  37.74    7
ATOM   9860  CA   ARG C 831    32.890  74.584  29.247  1.00  38.23    6
ATOM   9861  CB   ARG C 831    34.073  75.539  29.095  1.00  32.53    6
ATOM   9862  CG   ARG C 831    35.225  74.934  28.313  1.00  32.88    6
ATOM   9863  CD   ARG C 831    36.136  75.977  27.686  1.00  32.47    6
ATOM   9864  NE   ARG C 831    37.389  75.382  27.231  1.00  31.19    7
ATOM   9865  CZ   ARG C 831    38.425  75.146  28.028  1.00  30.93    6
ATOM   9866  NH1  ARG C 831    38.354  75.466  29.310  1.00  28.35    7
ATOM   9867  NH2  ARG C 831    39.522  74.579  27.549  1.00  32.06    7
ATOM   9868  C    ARG C 831    32.207  74.804  30.600  1.00  38.44    6
ATOM   9869  O    ARG C 831    32.888  75.107  31.564  1.00  40.82    8
ATOM   9870  N    LYS C 832    30.897  74.621  30.697  1.00  54.72    7
ATOM   9871  CA   LYS C 832    30.190  74.803  31.971  1.00  53.39    6
ATOM   9872  CB   LYS C 832    29.877  73.451  32.614  1.00  53.99    6
ATOM   9873  CG   LYS C 832    29.311  72.425  31.643  1.00  58.08    6
ATOM   9874  CD   LYS C 832    28.366  71.424  32.304  1.00  59.20    6
ATOM   9875  CE   LYS C 832    27.080  72.113  32.715  1.00  59.55    6
ATOM   9876  NZ   LYS C 832    26.026  71.157  33.141  1.00  61.57    7
ATOM   9877  C    LYS C 832    30.942  75.668  32.987  1.00  52.37    6
ATOM   9878  O    LYS C 832    31.604  76.647  32.620  1.00  53.67    8
ATOM   9879  N    LEU C 833    30.842  75.314  34.266  1.00  22.03    7
ATOM   9880  CA   LEU C 833    31.512  76.088  35.306  1.00  19.43    6
ATOM   9881  CB   LEU C 833    30.513  77.081  35.920  1.00  13.87    6
ATOM   9882  CG   LEU C 833    31.006  78.195  36.844  1.00  13.87    6
ATOM   9883  CD1  LEU C 833    32.109  78.938  36.145  1.00  13.87    6
ATOM   9884  CD2  LEU C 833    29.872  79.142  37.230  1.00  13.87    6
ATOM   9885  C    LEU C 833    32.138  75.182  36.381  1.00  18.99    6
ATOM   9886  O    LEU C 833    31.473  74.316  36.965  1.00  18.69    8
ATOM   9887  N    GLN C 834    33.430  75.389  36.638  1.00  28.50    7
ATOM   9888  CA   GLN C 834    34.149  74.585  37.620  1.00  28.53    6
ATOM   9889  CB   GLN C 834    35.226  73.770  36.917  1.00  68.17    6
ATOM   9890  CG   GLN C 834    34.823  73.247  35.564  1.00  72.95    6
ATOM   9891  CD   GLN C 834    35.890  72.354  34.980  1.00  75.96    6
ATOM   9892  OE1  GLN C 834    37.039  72.767  34.815  1.00  76.56    8
ATOM   9893  NE2  GLN C 834    35.520  71.115  34.666  1.00  77.61    7
ATOM   9894  C    GLN C 834    34.805  75.371  38.754  1.00  25.06    6
ATOM   9895  O    GLN C 834    34.796  76.597  38.781  1.00  24.26    8
ATOM   9896  N    VAL C 835    35.392  74.623  39.680  1.00  13.87    7
ATOM   9897  CA   VAL C 835    36.079  75.172  40.827  1.00  13.87    6
ATOM   9898  CB   VAL C 835    36.346  74.104  41.828  1.00  14.75    6
ATOM   9899  CG1  VAL C 835    37.114  74.666  42.981  1.00  14.75    6
ATOM   9900  CG2  VAL C 835    35.053  73.524  42.271  1.00  16.67    6
ATOM   9901  C    VAL C 835    37.407  75.791  40.449  1.00  13.87    6
ATOM   9902  O    VAL C 835    38.408  75.104  40.255  1.00  13.87    8
ATOM   9903  N    GLY C 836    37.398  77.112  40.382  1.00  38.13    7
```

```
ATOM   9904  CA   GLY C 836      38.561  77.895  40.014  1.00  38.87      6
ATOM   9905  C    GLY C 836      37.859  79.068  39.388  1.00  39.59      6
ATOM   9906  O    GLY C 836      36.947  79.625  39.999  1.00  40.37      8
ATOM   9907  N    ASP C 837      38.246  79.440  38.180  1.00  15.05      7
ATOM   9908  CA   ASP C 837      37.571  80.543  37.470  1.00  17.20      6
ATOM   9909  CB   ASP C 837      36.283  80.050  36.758  1.00  30.43      6
ATOM   9910  CG   ASP C 837      36.204  78.534  36.625  1.00  30.90      6
ATOM   9911  OD1  ASP C 837      35.425  78.057  35.779  1.00  31.21      8
ATOM   9912  OD2  ASP C 837      36.896  77.810  37.365  1.00  31.70      8
ATOM   9913  C    ASP C 837      37.195  81.840  38.229  1.00  17.18      6
ATOM   9914  O    ASP C 837      36.721  81.837  39.379  1.00  15.72      8
ATOM   9915  N    LYS C 838      37.393  82.956  37.537  1.00  51.34      7
ATOM   9916  CA   LYS C 838      37.074  84.250  38.094  1.00  50.43      6
ATOM   9917  CB   LYS C 838      38.029  85.307  37.536  1.00  41.17      6
ATOM   9918  CG   LYS C 838      39.457  85.176  38.068  1.00  43.09      6
ATOM   9919  CD   LYS C 838      40.381  86.221  37.470  1.00  44.30      6
ATOM   9920  CE   LYS C 838      39.827  87.606  37.648  1.00  45.38      6
ATOM   9921  NZ   LYS C 838      40.582  88.498  36.754  1.00  47.80      7
ATOM   9922  C    LYS C 838      35.630  84.584  37.755  1.00  49.10      6
ATOM   9923  O    LYS C 838      35.193  84.431  36.615  1.00  50.63      8
ATOM   9924  N    LEU C 839      34.880  85.022  38.754  1.00  21.50      7
ATOM   9925  CA   LEU C 839      33.500  85.352  38.523  1.00  18.88      6
ATOM   9926  CB   LEU C 839      32.654  84.948  39.721  1.00  13.87      6
ATOM   9927  CG   LEU C 839      31.429  84.085  39.391  1.00  13.87      6
ATOM   9928  CD1  LEU C 839      30.827  84.533  38.074  1.00  13.87      6
ATOM   9929  CD2  LEU C 839      31.826  82.633  39.302  1.00  13.87      6
ATOM   9930  C    LEU C 839      33.403  86.837  38.258  1.00  18.99      6
ATOM   9931  O    LEU C 839      32.684  87.258  37.372  1.00  19.95      8
ATOM   9932  N    ALA C 840      34.109  87.634  39.038  1.00  13.87      7
ATOM   9933  CA   ALA C 840      34.136  89.074  38.821  1.00  13.87      6
ATOM   9934  CB   ALA C 840      35.382  89.406  38.064  1.00  95.91      6
ATOM   9935  C    ALA C 840      32.946  89.759  38.133  1.00  13.87      6
ATOM   9936  O    ALA C 840      32.643  89.504  36.970  1.00  13.87      8
ATOM   9937  N    ASN C 841      32.308  90.676  38.858  1.00  49.24      7
ATOM   9938  CA   ASN C 841      31.163  91.419  38.341  1.00  50.01      6
ATOM   9939  CB   ASN C 841      30.166  91.723  39.451  1.00  20.39      6
ATOM   9940  CG   ASN C 841      30.715  92.659  40.486  1.00  18.55      6
ATOM   9941  OD1  ASN C 841      30.110  92.836  41.543  1.00  18.43      8
ATOM   9942  ND2  ASN C 841      31.860  93.269  40.199  1.00  18.43      7
ATOM   9943  C    ASN C 841      31.571  92.721  37.683  1.00  49.72      6
ATOM   9944  O    ASN C 841      32.631  92.800  37.068  1.00  52.22      8
ATOM   9945  N    ARG C 842      30.731  93.745  37.841  1.00  27.48      7
ATOM   9946  CA   ARG C 842      30.977  95.047  37.221  1.00  27.33      6
ATOM   9947  CB   ARG C 842      29.660  95.649  36.717  1.00  23.83      6
ATOM   9948  CG   ARG C 842      29.075  94.961  35.490  1.00  23.93      6
ATOM   9949  CD   ARG C 842      27.774  95.599  35.065  1.00  23.24      6
ATOM   9950  NE   ARG C 842      26.792  95.541  36.140  1.00  22.83      7
ATOM   9951  CZ   ARG C 842      25.509  95.839  35.985  1.00  23.87      6
ATOM   9952  NH1  ARG C 842      25.070  96.213  34.795  1.00  23.14      7
ATOM   9953  NH2  ARG C 842      24.672  95.759  37.010  1.00  23.58      7
ATOM   9954  C    ARG C 842      31.680  96.063  38.095  1.00  27.01      6
ATOM   9955  O    ARG C 842      32.464  96.857  37.603  1.00  26.37      8
ATOM   9956  N    HIS C 843      31.393  96.047  39.389  1.00  19.36      7
ATOM   9957  CA   HIS C 843      32.021  96.982  40.296  1.00  18.78      6
ATOM   9958  CB   HIS C 843      31.155  97.173  41.514  1.00  18.72      6
ATOM   9959  CG   HIS C 843      29.806  97.700  41.179  1.00  18.72      6
```

178

ATOM	9960	CD2	HIS	C	843	28.572	97.195	41.390	1.00 19.21	6
ATOM	9961	ND1	HIS	C	843	29.624	98.880	40.496	1.00 19.38	7
ATOM	9962	CE1	HIS	C	843	28.335	99.082	40.301	1.00 19.92	6
ATOM	9963	NE2	HIS	C	843	27.674	98.072	40.835	1.00 20.05	7
ATOM	9964	C	HIS	C	843	33.391	96.510	40.698	1.00 19.82	6
ATOM	9965	O	HIS	C	843	33.963	96.997	41.661	1.00 20.83	8
ATOM	9966	N	GLY	C	844	33.921	95.557	39.947	1.00 25.94	7
ATOM	9967	CA	GLY	C	844	35.243	95.051	40.242	1.00 25.22	6
ATOM	9968	C	GLY	C	844	35.308	94.143	41.446	1.00 25.40	6
ATOM	9969	O	GLY	C	844	36.258	94.234	42.219	1.00 26.35	8
ATOM	9970	N	ASN	C	845	34.313	93.275	41.620	1.00 22.56	7
ATOM	9971	CA	ASN	C	845	34.328	92.345	42.745	1.00 22.56	6
ATOM	9972	CB	ASN	C	845	32.914	92.095	43.267	1.00 42.57	6
ATOM	9973	CG	ASN	C	845	32.909	91.366	44.604	1.00 43.63	6
ATOM	9974	OD1	ASN	C	845	33.444	90.267	44.727	1.00 42.96	8
ATOM	9975	ND2	ASN	C	845	32.306	91.983	45.615	1.00 43.19	7
ATOM	9976	C	ASN	C	845	34.943	91.013	42.312	1.00 22.81	6
ATOM	9977	O	ASN	C	845	34.487	89.958	42.713	1.00 22.56	8
ATOM	9978	N	LYS	C	846	35.989	91.074	41.497	1.00 14.03	7
ATOM	9979	CA	LYS	C	846	36.652	89.882	40.995	1.00 13.87	6
ATOM	9980	CB	LYS	C	846	37.830	90.263	40.102	1.00 28.49	6
ATOM	9981	CG	LYS	C	846	38.811	91.249	40.704	1.00 31.68	6
ATOM	9982	CD	LYS	C	846	40.003	90.554	41.335	1.00 34.63	6
ATOM	9983	CE	LYS	C	846	41.150	91.540	41.528	1.00 35.89	6
ATOM	9984	NZ	LYS	C	846	41.629	92.107	40.224	1.00 34.76	7
ATOM	9985	C	LYS	C	846	37.135	88.932	42.048	1.00 13.87	6
ATOM	9986	O	LYS	C	846	37.985	89.281	42.850	1.00 13.87	8
ATOM	9987	N	GLY	C	847	36.588	87.722	42.017	1.00 27.87	7
ATOM	9988	CA	GLY	C	847	36.951	86.676	42.956	1.00 29.18	6
ATOM	9989	C	GLY	C	847	36.860	85.351	42.227	1.00 30.07	6
ATOM	9990	O	GLY	C	847	36.105	85.240	41.259	1.00 33.23	8
ATOM	9991	N	VAL	C	848	37.614	84.348	42.673	1.00 17.28	7
ATOM	9992	CA	VAL	C	848	37.610	83.027	42.031	1.00 16.07	6
ATOM	9993	CB	VAL	C	848	39.046	82.449	42.007	1.00 15.08	6
ATOM	9994	CG1	VAL	C	848	39.440	81.913	43.381	1.00 14.66	6
ATOM	9995	CG2	VAL	C	848	39.146	81.393	40.962	1.00 14.79	6
ATOM	9996	C	VAL	C	848	36.657	82.042	42.731	1.00 15.51	6
ATOM	9997	O	VAL	C	848	36.561	82.034	43.957	1.00 15.51	8
ATOM	9998	N	VAL	C	849	35.949	81.211	41.969	1.00 34.35	7
ATOM	9999	CA	VAL	C	849	35.014	80.278	42.602	1.00 35.20	6
ATOM	10000	CB	VAL	C	849	34.169	79.467	41.599	1.00 15.91	6
ATOM	10001	CG1	VAL	C	849	33.191	78.610	42.375	1.00 15.91	6
ATOM	10002	CG2	VAL	C	849	33.424	80.376	40.629	1.00 15.91	6
ATOM	10003	C	VAL	C	849	35.706	79.257	43.484	1.00 36.06	6
ATOM	10004	O	VAL	C	849	36.728	78.678	43.111	1.00 36.56	8
ATOM	10005	N	ALA	C	850	35.130	79.030	44.656	1.00 13.87	7
ATOM	10006	CA	ALA	C	850	35.682	78.075	45.598	1.00 13.87	6
ATOM	10007	CB	ALA	C	850	35.644	78.637	47.005	1.00 30.43	6
ATOM	10008	C	ALA	C	850	34.888	76.792	45.528	1.00 13.87	6
ATOM	10009	O	ALA	C	850	35.348	75.807	44.980	1.00 13.87	8
ATOM	10010	N	LYS	C	851	33.682	76.803	46.072	1.00 15.04	7
ATOM	10011	CA	LYS	C	851	32.852	75.615	46.058	1.00 16.33	6
ATOM	10012	CB	LYS	C	851	32.548	75.177	47.483	1.00 47.89	6
ATOM	10013	CG	LYS	C	851	33.670	74.453	48.154	1.00 51.90	6
ATOM	10014	CD	LYS	C	851	33.103	73.697	49.331	1.00 55.82	6
ATOM	10015	CE	LYS	C	851	34.049	72.604	49.804	1.00 58.16	6

179

```
ATOM   10016  NZ   LYS C 851        33.488  71.855  50.970  1.00  61.84      7
ATOM   10017  C    LYS C 851        31.545  75.811  45.314  1.00  17.23      6
ATOM   10018  O    LYS C 851        31.112  76.932  45.075  1.00  16.53      8
ATOM   10019  N    ILE C 852        30.927  74.705  44.930  1.00  30.21      7
ATOM   10020  CA   ILE C 852        29.638  74.742  44.269  1.00  31.21      6
ATOM   10021  CB   ILE C 852        29.695  74.259  42.809  1.00  45.44      6
ATOM   10022  CG2  ILE C 852        30.195  75.359  41.907  1.00  46.68      6
ATOM   10023  CG1  ILE C 852        30.589  73.025  42.702  1.00  47.88      6
ATOM   10024  CD1  ILE C 852        32.054  73.276  43.035  1.00  47.76      6
ATOM   10025  C    ILE C 852        28.839  73.756  45.091  1.00  31.45      6
ATOM   10026  O    ILE C 852        29.029  72.554  44.981  1.00  33.97      8
ATOM   10027  N    LEU C 853        27.974  74.277  45.950  1.00  32.11      7
ATOM   10028  CA   LEU C 853        27.147  73.456  46.818  1.00  32.54      6
ATOM   10029  CB   LEU C 853        26.733  74.256  48.053  1.00  33.03      6
ATOM   10030  CG   LEU C 853        27.652  74.338  49.272  1.00  34.33      6
ATOM   10031  CD1  LEU C 853        29.102  74.497  48.862  1.00  33.26      6
ATOM   10032  CD2  LEU C 853        27.192  75.506  50.142  1.00  33.78      6
ATOM   10033  C    LEU C 853        25.892  72.950  46.112  1.00  32.54      6
ATOM   10034  O    LEU C 853        25.429  73.538  45.129  1.00  33.26      8
ATOM   10035  N    PRO C 854        25.324  71.842  46.614  1.00  15.91      7
ATOM   10036  CD   PRO C 854        25.876  71.064  47.741  1.00  21.01      6
ATOM   10037  CA   PRO C 854        24.114  71.211  46.081  1.00  15.76      6
ATOM   10038  CB   PRO C 854        24.149  69.845  46.730  1.00  21.46      6
ATOM   10039  CG   PRO C 854        24.742  70.151  48.093  1.00  21.49      6
ATOM   10040  C    PRO C 854        22.939  72.036  46.563  1.00  15.96      6
ATOM   10041  O    PRO C 854        22.963  72.518  47.693  1.00  16.82      8
ATOM   10042  N    VAL C 855        21.913  72.208  45.736  1.00  13.99      7
ATOM   10043  CA   VAL C 855        20.772  73.019  46.158  1.00  14.16      6
ATOM   10044  CB   VAL C 855        19.572  72.873  45.191  1.00  15.96      6
ATOM   10045  CG1  VAL C 855        20.021  73.048  43.759  1.00  15.79      6
ATOM   10046  CG2  VAL C 855        18.933  71.538  45.370  1.00  16.37      6
ATOM   10047  C    VAL C 855        20.328  72.636  47.577  1.00  15.92      6
ATOM   10048  O    VAL C 855        19.685  73.444  48.261  1.00  14.68      8
ATOM   10049  N    GLU C 856        20.684  71.406  47.994  1.00  47.18      7
ATOM   10050  CA   GLU C 856        20.367  70.852  49.326  1.00  49.10      6
ATOM   10051  CB   GLU C 856        21.216  69.613  49.641  1.00  76.95      6
ATOM   10052  CG   GLU C 856        21.317  68.541  48.575  1.00  79.55      6
ATOM   10053  CD   GLU C 856        22.169  67.352  49.041  1.00  81.76      6
ATOM   10054  OE1  GLU C 856        21.821  66.728  50.067  1.00  82.70      8
ATOM   10055  OE2  GLU C 856        23.188  67.042  48.386  1.00  82.38      8
ATOM   10056  C    GLU C 856        20.706  71.896  50.380  1.00  49.17      6
ATOM   10057  O    GLU C 856        19.829  72.501  51.003  1.00  48.86      8
ATOM   10058  N    ASP C 857        22.008  72.060  50.590  1.00  29.03      7
ATOM   10059  CA   ASP C 857        22.543  73.043  51.510  1.00  30.39      6
ATOM   10060  CB   ASP C 857        24.056  72.915  51.579  1.00  31.58      6
ATOM   10061  CG   ASP C 857        24.514  71.558  52.070  1.00  32.45      6
ATOM   10062  OD1  ASP C 857        24.547  71.347  53.310  1.00  32.14      8
ATOM   10063  OD2  ASP C 857        24.847  70.707  51.206  1.00  32.10      8
ATOM   10064  C    ASP C 857        22.193  74.366  50.834  1.00  32.77      6
ATOM   10065  O    ASP C 857        21.254  74.422  50.031  1.00  33.91      8
ATOM   10066  N    MET C 858        22.945  75.423  51.130  1.00  44.36      7
ATOM   10067  CA   MET C 858        22.690  76.724  50.512  1.00  46.64      6
ATOM   10068  CB   MET C 858        22.422  76.583  49.005  1.00  52.89      6
ATOM   10069  CG   MET C 858        23.611  76.178  48.158  1.00  53.88      6
ATOM   10070  SD   MET C 858        24.764  77.516  47.938  1.00  53.56     16
ATOM   10071  CE   MET C 858        23.670  78.836  47.358  1.00  51.17      6
```

180

```
ATOM   10072  C    MET C 858      21.515  77.479  51.103  1.00 47.41      6
ATOM   10073  O    MET C 858      20.402  76.966  51.163  1.00 47.52      8
ATOM   10074  N    PRO C 859      21.756  78.716  51.548  1.00 45.14      7
ATOM   10075  CD   PRO C 859      23.102  79.260  51.784  1.00 35.63      6
ATOM   10076  CA   PRO C 859      20.753  79.599  52.131  1.00 46.72      6
ATOM   10077  CB   PRO C 859      21.414  80.952  51.997  1.00 36.25      6
ATOM   10078  CG   PRO C 859      22.817  80.627  52.396  1.00 36.31      6
ATOM   10079  C    PRO C 859      19.393  79.528  51.421  1.00 47.95      6
ATOM   10080  O    PRO C 859      19.257  79.935  50.260  1.00 47.86      8
ATOM   10081  N    HIS C 860      18.407  78.985  52.138  1.00 63.92      7
ATOM   10082  CA   HIS C 860      17.036  78.822  51.659  1.00 63.67      6
ATOM   10083  CB   HIS C 860      16.332  77.716  52.477  1.00 52.57      6
ATOM   10084  CG   HIS C 860      16.073  76.455  51.709  1.00 54.47      6
ATOM   10085  CD2  HIS C 860      16.692  75.252  51.733  1.00 55.68      6
ATOM   10086  ND1  HIS C 860      15.086  76.352  50.752  1.00 55.79      7
ATOM   10087  CE1  HIS C 860      15.109  75.143  50.218  1.00 55.08      6
ATOM   10088  NE2  HIS C 860      16.076  74.454  50.796  1.00 55.90      7
ATOM   10089  C    HIS C 860      16.322  80.148  51.877  1.00 62.95      6
ATOM   10090  O    HIS C 860      16.423  80.720  52.953  1.00 63.85      8
ATOM   10091  N    LEU C 861      15.638  80.670  50.869  1.00 65.05      7
ATOM   10092  CA   LEU C 861      14.901  81.910  51.091  1.00 65.21      6
ATOM   10093  CB   LEU C 861      14.490  82.567  49.771  1.00 25.82      6
ATOM   10094  CG   LEU C 861      14.298  84.089  49.799  1.00 24.82      6
ATOM   10095  CD1  LEU C 861      15.665  84.764  49.811  1.00 23.70      6
ATOM   10096  CD2  LEU C 861      13.492  84.550  48.600  1.00 23.90      6
ATOM   10097  C    LEU C 861      13.680  81.331  51.795  1.00 66.71      6
ATOM   10098  O    LEU C 861      13.516  80.110  51.809  1.00 68.75      8
ATOM   10099  N    PRO C 862      12.803  82.170  52.375  1.00 74.55      7
ATOM   10100  CD   PRO C 862      12.667  83.631  52.284  1.00 91.58      6
ATOM   10101  CA   PRO C 862      11.638  81.592  53.053  1.00 72.97      6
ATOM   10102  CB   PRO C 862      10.854  82.823  53.489  1.00 90.68      6
ATOM   10103  CG   PRO C 862      11.177  83.808  52.414  1.00 92.13      6
ATOM   10104  C    PRO C 862      10.802  80.634  52.207  1.00 71.31      6
ATOM   10105  O    PRO C 862      10.680  79.451  52.537  1.00 71.81      8
ATOM   10106  N    ASP C 863      10.238  81.137  51.114  1.00 34.21      7
ATOM   10107  CA   ASP C 863       9.403  80.312  50.252  1.00 32.54      6
ATOM   10108  CB   ASP C 863       8.863  81.146  49.096  1.00 51.46      6
ATOM   10109  CG   ASP C 863       9.958  81.642  48.191  1.00 52.55      6
ATOM   10110  OD1  ASP C 863       9.676  82.477  47.305  1.00 52.96      8
ATOM   10111  OD2  ASP C 863      11.109  81.188  48.365  1.00 53.95      8
ATOM   10112  C    ASP C 863      10.133  79.090  49.707  1.00 30.63      6
ATOM   10113  O    ASP C 863       9.537  78.254  49.037  1.00 29.45      8
ATOM   10114  N    GLY C 864      11.426  78.984  49.975  1.00 66.70      7
ATOM   10115  CA   GLY C 864      12.153  77.824  49.497  1.00 65.94      6
ATOM   10116  C    GLY C 864      13.085  78.016  48.317  1.00 64.47      6
ATOM   10117  O    GLY C 864      13.931  77.151  48.051  1.00 65.00      8
ATOM   10118  N    THR C 865      12.937  79.117  47.587  1.00 24.19      7
ATOM   10119  CA   THR C 865      13.830  79.342  46.460  1.00 22.01      6
ATOM   10120  CB   THR C 865      13.563  80.693  45.730  1.00 25.34      6
ATOM   10121  OG1  THR C 865      13.624  81.776  46.668  1.00 24.62      8
ATOM   10122  CG2  THR C 865      12.207  80.675  45.029  1.00 25.49      6
ATOM   10123  C    THR C 865      15.213  79.381  47.079  1.00 20.25      6
ATOM   10124  O    THR C 865      15.359  79.776  48.234  1.00 20.27      8
ATOM   10125  N    PRO C 866      16.239  78.929  46.341  1.00 19.38      7
ATOM   10126  CD   PRO C 866      16.176  78.105  45.118  1.00 30.86      6
ATOM   10127  CA   PRO C 866      17.602  78.938  46.865  1.00 17.70      6
```

181

```
ATOM   10128  CB  PRO C 866      18.203  77.699  46.240  1.00  29.62      6
ATOM   10129  CG  PRO C 866      17.659  77.798  44.838  1.00  29.65      6
ATOM   10130  C   PRO C 866      18.298  80.173  46.351  1.00  16.75      6
ATOM   10131  O   PRO C 866      17.875  80.759  45.347  1.00  15.08      8
ATOM   10132  N   VAL C 867      19.364  80.571  47.027  1.00  24.38      7
ATOM   10133  CA  VAL C 867      20.107  81.718  46.555  1.00  24.88      6
ATOM   10134  CB  VAL C 867      20.968  82.302  47.672  1.00  40.48      6
ATOM   10135  CG1 VAL C 867      21.400  83.712  47.311  1.00  40.84      6
ATOM   10136  CG2 VAL C 867      20.187  82.301  48.957  1.00  39.45      6
ATOM   10137  C   VAL C 867      20.978  81.152  45.420  1.00  25.01      6
ATOM   10138  O   VAL C 867      20.871  79.969  45.099  1.00  24.57      8
ATOM   10139  N   ASP C 868      21.813  81.969  44.792  1.00  25.79      7
ATOM   10140  CA  ASP C 868      22.639  81.447  43.717  1.00  28.08      6
ATOM   10141  CB  ASP C 868      22.328  82.177  42.407  1.00  45.92      6
ATOM   10142  CG  ASP C 868      20.984  81.759  41.807  1.00  50.99      6
ATOM   10143  OD1 ASP C 868      20.740  80.539  41.679  1.00  54.02      8
ATOM   10144  OD2 ASP C 868      20.175  82.641  41.445  1.00  51.57      8
ATOM   10145  C   ASP C 868      24.127  81.522  44.041  1.00  27.89      6
ATOM   10146  O   ASP C 868      24.825  80.505  44.014  1.00  29.18      8
ATOM   10147  N   VAL C 869      24.610  82.722  44.354  1.00  13.87      7
ATOM   10148  CA  VAL C 869      26.009  82.922  44.691  1.00  13.87      6
ATOM   10149  CB  VAL C 869      26.691  83.807  43.643  1.00  13.87      6
ATOM   10150  CG1 VAL C 869      25.818  84.943  43.268  1.00  13.87      6
ATOM   10151  CG2 VAL C 869      27.936  84.339  44.177  1.00  13.87      6
ATOM   10152  C   VAL C 869      26.119  83.539  46.080  1.00  13.87      6
ATOM   10153  O   VAL C 869      25.347  84.412  46.428  1.00  13.87      8
ATOM   10154  N   ILE C 870      27.062  83.059  46.883  1.00  20.02      7
ATOM   10155  CA  ILE C 870      27.264  83.566  48.237  1.00  19.94      6
ATOM   10156  CB  ILE C 870      27.458  82.415  49.248  1.00  16.17      6
ATOM   10157  CG2 ILE C 870      27.485  82.960  50.665  1.00  15.37      6
ATOM   10158  CG1 ILE C 870      26.313  81.415  49.139  1.00  15.26      6
ATOM   10159  CD1 ILE C 870      24.961  82.086  49.153  1.00  17.33      6
ATOM   10160  C   ILE C 870      28.480  84.484  48.333  1.00  21.12      6
ATOM   10161  O   ILE C 870      29.466  84.149  48.987  1.00  19.61      8
ATOM   10162  N   LEU C 871      28.396  85.634  47.666  1.00  29.23      7
ATOM   10163  CA  LEU C 871      29.450  86.652  47.649  1.00  30.67      6
ATOM   10164  CB  LEU C 871      28.987  87.862  46.831  1.00  25.22      6
ATOM   10165  CG  LEU C 871      29.698  88.283  45.537  1.00  27.31      6
ATOM   10166  CD1 LEU C 871      29.835  87.116  44.576  1.00  26.76      6
ATOM   10167  CD2 LEU C 871      28.911  89.422  44.894  1.00  26.18      6
ATOM   10168  C   LEU C 871      29.755  87.102  49.078  1.00  31.91      6
ATOM   10169  O   LEU C 871      28.861  87.514  49.816  1.00  32.07      8
ATOM   10170  N   ASN C 872      31.024  87.033  49.461  1.00  63.95      7
ATOM   10171  CA  ASN C 872      31.436  87.419  50.803  1.00  65.14      6
ATOM   10172  CB  ASN C 872      32.814  86.861  51.117  1.00  62.52      6
ATOM   10173  CG  ASN C 872      33.335  87.352  52.439  1.00  63.43      6
ATOM   10174  OD1 ASN C 872      32.982  86.825  53.488  1.00  62.80      8
ATOM   10175  ND2 ASN C 872      34.165  88.384  52.400  1.00  65.14      7
ATOM   10176  C   ASN C 872      31.487  88.923  50.981  1.00  65.36      6
ATOM   10177  O   ASN C 872      31.863  89.651  50.065  1.00  65.44      8
ATOM   10178  N   PRO C 873      31.115  89.408  52.175  1.00  24.18      7
ATOM   10179  CD  PRO C 873      30.480  88.651  53.270  1.00  49.41      6
ATOM   10180  CA  PRO C 873      31.124  90.837  52.474  1.00  22.58      6
ATOM   10181  CB  PRO C 873      30.085  90.960  53.573  1.00  47.18      6
ATOM   10182  CG  PRO C 873      30.298  89.707  54.349  1.00  49.17      6
ATOM   10183  C   PRO C 873      32.501  91.226  52.952  1.00  21.55      6
```

```
ATOM   10184  O    PRO C 873      33.189  92.005  52.322  1.00  21.51      8
ATOM   10185  N    LEU C 874      32.905  90.646  54.066  1.00  22.64      7
ATOM   10186  CA   LEU C 874      34.197  90.935  54.660  1.00  24.20      6
ATOM   10187  CB   LEU C 874      34.802  89.675  55.245  1.00  19.69      6
ATOM   10188  CG   LEU C 874      35.431  89.954  56.589  1.00  17.49      6
ATOM   10189  CD1  LEU C 874      34.488  90.845  57.436  1.00  19.96      6
ATOM   10190  CD2  LEU C 874      35.711  88.636  57.248  1.00  15.59      6
ATOM   10191  C    LEU C 874      35.171  91.560  53.694  1.00  26.40      6
ATOM   10192  O    LEU C 874      35.351  91.094  52.554  1.00  24.93      8
ATOM   10193  N    GLY C 875      35.820  92.614  54.167  1.00  35.44      7
ATOM   10194  CA   GLY C 875      36.736  93.329  53.314  1.00  39.71      6
ATOM   10195  C    GLY C 875      35.945  93.793  52.098  1.00  42.49      6
ATOM   10196  O    GLY C 875      35.373  94.890  52.082  1.00  41.40      8
ATOM   10197  N    VAL C 876      35.889  92.921  51.096  1.00  88.65      7
ATOM   10198  CA   VAL C 876      35.203  93.188  49.846  1.00  90.76      6
ATOM   10199  CB   VAL C 876      34.167  92.101  49.540  1.00138.75      6
ATOM   10200  CG1  VAL C 876      33.611  92.305  48.141  1.00138.36      6
ATOM   10201  CG2  VAL C 876      34.803  90.733  49.678  1.00140.60      6
ATOM   10202  C    VAL C 876      34.549  94.564  49.756  1.00  90.90      6
ATOM   10203  O    VAL C 876      35.105  95.459  49.119  1.00  92.43      8
ATOM   10204  N    PRO C 877      33.374  94.773  50.392  1.00  41.75      7
ATOM   10205  CD   PRO C 877      32.308  93.935  50.975  1.00  30.43      6
ATOM   10206  CA   PRO C 877      32.895  96.143  50.194  1.00  40.40      6
ATOM   10207  CB   PRO C 877      31.393  96.032  50.524  1.00  28.90      6
ATOM   10208  CG   PRO C 877      31.339  94.945  51.520  1.00  30.32      6
ATOM   10209  C    PRO C 877      33.665  97.161  51.033  1.00  38.59      6
ATOM   10210  O    PRO C 877      34.267  98.086  50.502  1.00  38.67      8
ATOM   10211  N    SER C 878      33.660  96.965  52.340  1.00  16.22      7
ATOM   10212  CA   SER C 878      34.359  97.848  53.251  1.00  15.21      6
ATOM   10213  CB   SER C 878      34.472  97.149  54.578  1.00  28.46      6
ATOM   10214  OG   SER C 878      34.790  95.801  54.305  1.00  25.61      8
ATOM   10215  C    SER C 878      35.750  98.168  52.719  1.00  15.74      6
ATOM   10216  O    SER C 878      36.062  99.322  52.438  1.00  14.86      8
ATOM   10217  N    ARG C 879      36.581  97.136  52.586  1.00  46.60      7
ATOM   10218  CA   ARG C 879      37.943  97.292  52.078  1.00  47.67      6
ATOM   10219  CB   ARG C 879      38.572  95.926  51.784  1.00  65.31      6
ATOM   10220  CG   ARG C 879      39.124  95.170  52.990  1.00  69.39      6
ATOM   10221  CD   ARG C 879      39.713  93.827  52.557  1.00  71.49      6
ATOM   10222  NE   ARG C 879      40.361  93.109  53.653  1.00  75.91      7
ATOM   10223  CZ   ARG C 879      40.935  91.911  53.526  1.00  78.34      6
ATOM   10224  NH1  ARG C 879      40.936  91.299  52.345  1.00  79.75      7
ATOM   10225  NH2  ARG C 879      41.510  91.321  54.573  1.00  77.37      7
ATOM   10226  C    ARG C 879      37.987  98.123  50.804  1.00  46.80      6
ATOM   10227  O    ARG C 879      38.732  99.094  50.728  1.00  47.93      8
ATOM   10228  N    MET C 880      37.183  97.741  49.810  1.00  24.76      7
ATOM   10229  CA   MET C 880      37.147  98.435  48.517  1.00  22.28      6
ATOM   10230  CB   MET C 880      36.880  97.427  47.395  1.00  60.39      6
ATOM   10231  CG   MET C 880      37.912  96.309  47.273  1.00  62.40      6
ATOM   10232  SD   MET C 880      37.903  95.102  48.629  1.00  63.95     16
ATOM   10233  CE   MET C 880      38.835  93.688  47.883  1.00  60.88      6
ATOM   10234  C    MET C 880      36.145  99.588  48.375  1.00  20.22      6
ATOM   10235  O    MET C 880      36.201 100.333  47.403  1.00  19.81      8
ATOM   10236  N    ASN C 881      35.255  99.748  49.349  1.00  17.01      7
ATOM   10237  CA   ASN C 881      34.230 100.790  49.308  1.00  14.46      6
ATOM   10238  CB   ASN C 881      34.720 102.131  49.864  1.00  19.58      6
ATOM   10239  CG   ASN C 881      36.210 102.274  49.838  1.00  20.04      6
```

183

```
ATOM  10240  OD1 ASN C 881      36.741 103.305  49.422  1.00 21.91       8
ATOM  10241  ND2 ASN C 881      36.904 101.257  50.315  1.00 20.68       7
ATOM  10242  C   ASN C 881      33.692 101.002  47.920  1.00 13.87       6
ATOM  10243  O   ASN C 881      34.295 101.684  47.116  1.00 13.87       8
ATOM  10244  N   LEU C 882      32.524 100.420  47.670  1.00 51.63       7
ATOM  10245  CA  LEU C 882      31.876 100.495  46.374  1.00 53.27       6
ATOM  10246  CB  LEU C 882      32.490  99.424  45.468  1.00 19.17       6
ATOM  10247  CG  LEU C 882      32.657  98.023  46.080  1.00 17.88       6
ATOM  10248  CD1 LEU C 882      33.303  97.111  45.059  1.00 18.68       6
ATOM  10249  CD2 LEU C 882      33.529  98.062  47.321  1.00 17.17       6
ATOM  10250  C   LEU C 882      30.335 100.361  46.436  1.00 55.80       6
ATOM  10251  O   LEU C 882      29.734 100.224  47.515  1.00 56.16       8
ATOM  10252  N   GLY C 883      29.706 100.428  45.265  1.00 66.41       7
ATOM  10253  CA  GLY C 883      28.259 100.328  45.178  1.00 68.46       6
ATOM  10254  C   GLY C 883      27.731  99.081  44.479  1.00 71.24       6
ATOM  10255  O   GLY C 883      26.817  99.171  43.653  1.00 73.20       8
ATOM  10256  N   GLN C 884      28.310  97.921  44.799  1.00 62.65       7
ATOM  10257  CA  GLN C 884      27.874  96.647  44.234  1.00 58.56       6
ATOM  10258  CB  GLN C 884      28.962  95.574  44.378  1.00 21.91       6
ATOM  10259  CG  GLN C 884      29.676  95.550  45.734  1.00 18.03       6
ATOM  10260  CD  GLN C 884      30.662  94.400  45.858  1.00 15.22       6
ATOM  10261  OE1 GLN C 884      30.296  93.246  45.649  1.00 13.87       8
ATOM  10262  NE2 GLN C 884      31.914  94.708  46.203  1.00 13.87       7
ATOM  10263  C   GLN C 884      26.639  96.229  44.996  1.00 57.37       6
ATOM  10264  O   GLN C 884      26.055  95.188  44.733  1.00 58.54       8
ATOM  10265  N   ILE C 885      26.257  97.059  45.959  1.00 69.69       7
ATOM  10266  CA  ILE C 885      25.083  96.806  46.768  1.00 68.35       6
ATOM  10267  CB  ILE C 885      25.244  97.392  48.181  1.00 13.87       6
ATOM  10268  CG2 ILE C 885      23.906  97.486  48.854  1.00 13.87       6
ATOM  10269  CG1 ILE C 885      26.111  96.480  49.032  1.00 13.87       6
ATOM  10270  CD1 ILE C 885      27.491  96.388  48.562  1.00 13.87       6
ATOM  10271  C   ILE C 885      23.857  97.413  46.081  1.00 70.41       6
ATOM  10272  O   ILE C 885      22.909  96.697  45.752  1.00 70.98       8
ATOM  10273  N   LEU C 886      23.860  98.724  45.868  1.00 50.09       7
ATOM  10274  CA  LEU C 886      22.731  99.338  45.187  1.00 50.40       6
ATOM  10275  CB  LEU C 886      22.964 100.831  44.949  1.00 31.30       6
ATOM  10276  CG  LEU C 886      23.251 101.847  46.053  1.00 29.77       6
ATOM  10277  CD1 LEU C 886      22.945 103.171  45.433  1.00 28.98       6
ATOM  10278  CD2 LEU C 886      22.402 101.678  47.315  1.00 29.77       6
ATOM  10279  C   LEU C 886      22.642  98.622  43.840  1.00 50.97       6
ATOM  10280  O   LEU C 886      23.254  99.035  42.858  1.00 51.31       8
ATOM  10281  N   GLU C 887      21.887  97.536  43.813  1.00 73.13       7
ATOM  10282  CA  GLU C 887      21.705  96.714  42.621  1.00 73.48       6
ATOM  10283  CB  GLU C 887      23.031  96.444  41.890  1.00 45.79       6
ATOM  10284  CG  GLU C 887      22.897  95.396  40.756  1.00 46.01       6
ATOM  10285  CD  GLU C 887      24.226  94.969  40.135  1.00 45.65       6
ATOM  10286  OE1 GLU C 887      24.961  95.823  39.583  1.00 44.07       8
ATOM  10287  OE2 GLU C 887      24.525  93.759  40.199  1.00 46.39       8
ATOM  10288  C   GLU C 887      21.210  95.418  43.194  1.00 72.66       6
ATOM  10289  O   GLU C 887      20.327  94.772  42.652  1.00 73.29       8
ATOM  10290  N   THR C 888      21.828  95.047  44.303  1.00 18.17       7
ATOM  10291  CA  THR C 888      21.487  93.851  45.023  1.00 15.33       6
ATOM  10292  CB  THR C 888      22.585  93.541  45.959  1.00 13.87       6
ATOM  10293  OG1 THR C 888      23.802  93.930  45.324  1.00 13.87       8
ATOM  10294  CG2 THR C 888      22.614  92.051  46.293  1.00 13.87       6
ATOM  10295  C   THR C 888      20.234  94.213  45.792  1.00 16.41       6
```

184

```
ATOM  10296  O    THR C 888    19.386  93.361  46.071  1.00 16.99      8
ATOM  10297  N    HIS C 889    20.137  95.497  46.137  1.00 32.23      7
ATOM  10298  CA   HIS C 889    18.979  96.033  46.831  1.00 32.75      6
ATOM  10299  CB   HIS C 889    19.329  97.333  47.539  1.00 39.22      6
ATOM  10300  CG   HIS C 889    20.145  97.137  48.777  1.00 39.27      6
ATOM  10301  CD2  HIS C 889    20.992  96.145  49.142  1.00 38.72      6
ATOM  10302  ND1  HIS C 889    20.135  98.035  49.821  1.00 40.02      7
ATOM  10303  CE1  HIS C 889    20.939  97.604  50.777  1.00 39.04      6
ATOM  10304  NE2  HIS C 889    21.474  96.459  50.391  1.00 38.17      7
ATOM  10305  C    HIS C 889    17.952  96.281  45.740  1.00 33.38      6
ATOM  10306  O    HIS C 889    16.850  95.732  45.788  1.00 34.33      8
ATOM  10307  N    LEU C 890    18.296  97.091  44.739  1.00 18.78      7
ATOM  10308  CA   LEU C 890    17.352  97.293  43.645  1.00 18.34      6
ATOM  10309  CB   LEU C 890    17.837  98.355  42.667  1.00 13.87      6
ATOM  10310  CG   LEU C 890    16.915  98.456  41.452  1.00 13.87      6
ATOM  10311  CD1  LEU C 890    15.643  99.165  41.840  1.00 13.87      6
ATOM  10312  CD2  LEU C 890    17.604  99.158  40.334  1.00 13.87      6
ATOM  10313  C    LEU C 890    17.285  95.946  42.920  1.00 19.41      6
ATOM  10314  O    LEU C 890    16.892  95.861  41.762  1.00 19.66      8
ATOM  10315  N    GLY C 891    17.676  94.890  43.623  1.00 60.57      7
ATOM  10316  CA   GLY C 891    17.682  93.560  43.042  1.00 63.51      6
ATOM  10317  C    GLY C 891    16.382  92.814  43.186  1.00 64.40      6
ATOM  10318  O    GLY C 891    15.733  92.497  42.190  1.00 65.49      8
ATOM  10319  N    LEU C 892    16.001  92.510  44.420  1.00 34.08      7
ATOM  10320  CA   LEU C 892    14.749  91.804  44.620  1.00 33.79      6
ATOM  10321  CB   LEU C 892    14.633  91.282  46.049  1.00 28.52      6
ATOM  10322  CG   LEU C 892    14.848  92.212  47.212  1.00 27.72      6
ATOM  10323  CD1  LEU C 892    15.482  91.388  48.297  1.00 27.36      6
ATOM  10324  CD2  LEU C 892    15.738  93.357  46.826  1.00 25.52      6
ATOM  10325  C    LEU C 892    13.663  92.792  44.284  1.00 33.60      6
ATOM  10326  O    LEU C 892    12.543  92.421  43.918  1.00 33.48      8
ATOM  10327  N    ALA C 893    14.026  94.064  44.383  1.00 62.28      7
ATOM  10328  CA   ALA C 893    13.115  95.140  44.039  1.00 63.02      6
ATOM  10329  CB   ALA C 893    13.581  96.448  44.660  1.00117.47      6
ATOM  10330  C    ALA C 893    13.211  95.196  42.519  1.00 62.12      6
ATOM  10331  O    ALA C 893    13.429  96.246  41.919  1.00 62.53      8
ATOM  10332  N    GLY C 894    13.060  94.028  41.913  1.00 23.96      7
ATOM  10333  CA   GLY C 894    13.148  93.915  40.479  1.00 22.93      6
ATOM  10334  C    GLY C 894    13.160  92.432  40.213  1.00 22.79      6
ATOM  10335  O    GLY C 894    13.377  91.959  39.095  1.00 23.57      8
ATOM  10336  N    TYR C 895    12.957  91.678  41.275  1.00 25.96      7
ATOM  10337  CA   TYR C 895    12.896  90.244  41.146  1.00 25.66      6
ATOM  10338  CB   TYR C 895    13.561  89.614  42.356  1.00 23.90      6
ATOM  10339  CG   TYR C 895    13.542  88.111  42.429  1.00 22.18      6
ATOM  10340  CD1  TYR C 895    13.895  87.331  41.338  1.00 21.01      6
ATOM  10341  CE1  TYR C 895    14.002  85.946  41.460  1.00 21.27      6
ATOM  10342  CD2  TYR C 895    13.283  87.471  43.642  1.00 21.87      6
ATOM  10343  CE2  TYR C 895    13.392  86.095  43.777  1.00 20.71      6
ATOM  10344  CZ   TYR C 895    13.756  85.339  42.687  1.00 20.90      6
ATOM  10345  OH   TYR C 895    13.916  83.983  42.839  1.00 21.62      8
ATOM  10346  C    TYR C 895    11.389  90.020  41.147  1.00 26.84      6
ATOM  10347  O    TYR C 895    10.783  89.748  40.097  1.00 26.90      8
ATOM  10348  N    PHE C 896    10.785  90.204  42.321  1.00 34.06      7
ATOM  10349  CA   PHE C 896     9.347  90.041  42.504  1.00 35.20      6
ATOM  10350  CB   PHE C 896     9.009  90.241  43.968  1.00 27.57      6
ATOM  10351  CG   PHE C 896     9.814  89.398  44.874  1.00 26.38      6
```

185

```
ATOM  10352  CD1 PHE C 896    11.089  89.785  45.240  1.00 25.96    6
ATOM  10353  CD2 PHE C 896     9.294  88.215  45.375  1.00 27.46    6
ATOM  10354  CE1 PHE C 896    11.843  89.002  46.104  1.00 27.11    6
ATOM  10355  CE2 PHE C 896    10.028  87.421  46.233  1.00 28.63    6
ATOM  10356  CZ  PHE C 896    11.309  87.813  46.605  1.00 28.80    6
ATOM  10357  C   PHE C 896     8.510  91.000  41.652  1.00 36.70    6
ATOM  10358  O   PHE C 896     7.360  90.716  41.305  1.00 36.27    8
ATOM  10359  N   LEU C 897     9.089  92.142  41.320  1.00 58.51    7
ATOM  10360  CA  LEU C 897     8.384  93.114  40.514  1.00 60.85    6
ATOM  10361  CB  LEU C 897     8.817  94.517  40.923  1.00 42.83    6
ATOM  10362  CG  LEU C 897     7.724  95.579  41.013  1.00 42.87    6
ATOM  10363  CD1 LEU C 897     6.707  95.182  42.071  1.00 43.38    6
ATOM  10364  CD2 LEU C 897     8.354  96.907  41.369  1.00 43.44    6
ATOM  10365  C   LEU C 897     8.671  92.884  39.025  1.00 61.83    6
ATOM  10366  O   LEU C 897     8.295  93.706  38.189  1.00 62.46    8
ATOM  10367  N   GLY C 898     9.324  91.763  38.704  1.00 38.99    7
ATOM  10368  CA  GLY C 898     9.661  91.456  37.322  1.00 39.51    6
ATOM  10369  C   GLY C 898    10.033  92.716  36.563  1.00 39.35    6
ATOM  10370  O   GLY C 898     9.219  93.252  35.819  1.00 38.82    8
ATOM  10371  N   GLN C 899    11.261  93.193  36.749  1.00 40.96    7
ATOM  10372  CA  GLN C 899    11.712  94.416  36.097  1.00 42.62    6
ATOM  10373  CB  GLN C 899    11.332  95.630  36.950  1.00 41.92    6
ATOM  10374  CG  GLN C 899     9.883  96.045  36.921  1.00 46.22    6
ATOM  10375  CD  GLN C 899     9.617  97.280  37.768  1.00 48.59    6
ATOM  10376  OE1 GLN C 899     9.692  97.234  38.992  1.00 49.74    8
ATOM  10377  NE2 GLN C 899     9.311  98.395  37.111  1.00 50.31    7
ATOM  10378  C   GLN C 899    13.211  94.523  35.837  1.00 41.70    6
ATOM  10379  O   GLN C 899    14.030  94.068  36.633  1.00 40.67    8
ATOM  10380  N   ARG C 900    13.564  95.135  34.714  1.00 34.30    7
ATOM  10381  CA  ARG C 900    14.963  95.406  34.410  1.00 34.45    6
ATOM  10382  CB  ARG C 900    15.275  95.093  32.936  1.00 69.44    6
ATOM  10383  CG  ARG C 900    15.347  93.590  32.616  1.00 72.22    6
ATOM  10384  CD  ARG C 900    16.080  93.265  31.293  1.00 74.51    6
ATOM  10385  NE  ARG C 900    15.222  93.302  30.102  1.00 77.19    7
ATOM  10386  CZ  ARG C 900    15.629  92.999  28.867  1.00 79.00    6
ATOM  10387  NH1 ARG C 900    16.886  92.636  28.640  1.00 79.20    7
ATOM  10388  NH2 ARG C 900    14.779  93.043  27.850  1.00 80.28    7
ATOM  10389  C   ARG C 900    15.064  96.927  34.729  1.00 32.73    6
ATOM  10390  O   ARG C 900    14.042  97.616  34.797  1.00 31.77    8
ATOM  10391  N   TYR C 901    16.256  97.467  34.959  1.00 28.86    7
ATOM  10392  CA  TYR C 901    16.333  98.884  35.299  1.00 27.06    6
ATOM  10393  CB  TYR C 901    16.461  99.057  36.816  1.00 51.17    6
ATOM  10394  CG  TYR C 901    15.344  98.445  37.637  1.00 54.33    6
ATOM  10395  CD1 TYR C 901    15.087  97.082  37.587  1.00 56.21    6
ATOM  10396  CE1 TYR C 901    14.067  96.511  38.332  1.00 56.58    6
ATOM  10397  CD2 TYR C 901    14.546  99.232  38.469  1.00 54.81    6
ATOM  10398  CE2 TYR C 901    13.519  98.667  39.227  1.00 55.85    6
ATOM  10399  CZ  TYR C 901    13.287  97.303  39.146  1.00 56.44    6
ATOM  10400  OH  TYR C 901    12.266  96.719  39.850  1.00 57.80    8
ATOM  10401  C   TYR C 901    17.463  99.650  34.627  1.00 25.11    6
ATOM  10402  O   TYR C 901    18.541  99.111  34.388  1.00 23.97    8
ATOM  10403  N   ILE C 902    17.194 100.922  34.337  1.00 36.72    7
ATOM  10404  CA  ILE C 902    18.157 101.815  33.702  1.00 35.73    6
ATOM  10405  CB  ILE C 902    17.614 102.405  32.381  1.00 35.77    6
ATOM  10406  CG2 ILE C 902    18.461 103.585  31.962  1.00 36.26    6
ATOM  10407  CG1 ILE C 902    17.681 101.365  31.266  1.00 37.30    6
```

```
ATOM   10408  CD1 ILE C 902      17.032 100.043  31.613  1.00 40.87      6
ATOM   10409  C   ILE C 902      18.524 102.968  34.631  1.00 35.26      6
ATOM   10410  O   ILE C 902      17.849 104.000  34.676  1.00 35.12      8
ATOM   10411  N   SER C 903      19.607 102.772  35.372  1.00 31.96      7
ATOM   10412  CA  SER C 903      20.119 103.754  36.311  1.00 30.93      6
ATOM   10413  CB  SER C 903      20.228 103.127  37.698  1.00 34.74      6
ATOM   10414  OG  SER C 903      21.452 103.468  38.322  1.00 35.86      8
ATOM   10415  C   SER C 903      21.491 104.161  35.820  1.00 29.29      6
ATOM   10416  O   SER C 903      22.489 103.590  36.226  1.00 28.82      8
ATOM   10417  N   PRO C 904      21.552 105.151  34.922  1.00 60.94      7
ATOM   10418  CD  PRO C 904      20.412 105.862  34.321  1.00 13.87      6
ATOM   10419  CA  PRO C 904      22.822 105.630  34.366  1.00 60.49      6
ATOM   10420  CB  PRO C 904      22.376 106.639  33.302  1.00 14.23      6
ATOM   10421  CG  PRO C 904      21.065 107.114  33.816  1.00 14.25      6
ATOM   10422  C   PRO C 904      23.842 106.206  35.352  1.00 59.70      6
ATOM   10423  O   PRO C 904      23.516 106.510  36.505  1.00 60.46      8
ATOM   10424  N   VAL C 905      25.077 106.340  34.863  1.00 15.62      7
ATOM   10425  CA  VAL C 905      26.218 106.848  35.622  1.00 14.36      6
ATOM   10426  CB  VAL C 905      27.500 106.820  34.790  1.00 29.83      6
ATOM   10427  CG1 VAL C 905      28.694 106.940  35.705  1.00 29.87      6
ATOM   10428  CG2 VAL C 905      27.565 105.557  33.962  1.00 31.57      6
ATOM   10429  C   VAL C 905      26.055 108.269  36.119  1.00 13.92      6
ATOM   10430  O   VAL C 905      26.104 109.228  35.344  1.00 13.87      8
ATOM   10431  N   PHE C 906      25.879 108.382  37.431  1.00 30.04      7
ATOM   10432  CA  PHE C 906      25.711 109.659  38.099  1.00 30.51      6
ATOM   10433  CB  PHE C 906      26.810 110.618  37.657  1.00 19.82      6
ATOM   10434  CG  PHE C 906      28.186 110.161  38.018  1.00 19.64      6
ATOM   10435  CD1 PHE C 906      29.235 110.307  37.127  1.00 18.44      6
ATOM   10436  CD2 PHE C 906      28.445 109.597  39.266  1.00 20.87      6
ATOM   10437  CE1 PHE C 906      30.525 109.901  37.471  1.00 18.44      6
ATOM   10438  CE2 PHE C 906      29.742 109.186  39.618  1.00 19.51      6
ATOM   10439  CZ  PHE C 906      30.778 109.341  38.717  1.00 18.93      6
ATOM   10440  C   PHE C 906      24.355 110.283  37.815  1.00 32.71      6
ATOM   10441  O   PHE C 906      24.227 111.508  37.867  1.00 32.97      8
ATOM   10442  N   ASP C 907      23.338 109.467  37.527  1.00 29.06      7
ATOM   10443  CA  ASP C 907      22.032 110.044  37.230  1.00 30.90      6
ATOM   10444  CB  ASP C 907      21.959 110.455  35.759  1.00 61.65      6
ATOM   10445  CG  ASP C 907      20.898 111.511  35.497  1.00 62.92      6
ATOM   10446  OD1 ASP C 907      19.837 111.485  36.160  1.00 61.39      8
ATOM   10447  OD2 ASP C 907      21.131 112.365  34.614  1.00 63.98      8
ATOM   10448  C   ASP C 907      20.816 109.192  37.537  1.00 32.34      6
ATOM   10449  O   ASP C 907      20.277 108.536  36.646  1.00 32.53      8
ATOM   10450  N   GLY C 908      20.373 109.224  38.793  1.00 45.67      7
ATOM   10451  CA  GLY C 908      19.183 108.485  39.181  1.00 45.28      6
ATOM   10452  C   GLY C 908      19.376 107.184  39.927  1.00 44.33      6
ATOM   10453  O   GLY C 908      20.496 106.739  40.165  1.00 44.93      8
ATOM   10454  N   ALA C 909      18.256 106.561  40.270  1.00 13.87      7
ATOM   10455  CA  ALA C 909      18.273 105.320  41.004  1.00 13.87      6
ATOM   10456  CB  ALA C 909      19.234 104.359  40.380  1.00 19.25      6
ATOM   10457  C   ALA C 909      18.725 105.684  42.396  1.00 13.87      6
ATOM   10458  O   ALA C 909      19.777 105.228  42.844  1.00 13.87      8
ATOM   10459  N   THR C 910      17.930 106.516  43.072  1.00 22.51      7
ATOM   10460  CA  THR C 910      18.258 106.966  44.419  1.00 25.35      6
ATOM   10461  CB  THR C 910      17.766 108.374  44.686  1.00 54.99      6
ATOM   10462  OG1 THR C 910      17.878 109.145  43.488  1.00 58.09      8
ATOM   10463  CG2 THR C 910      18.621 109.021  45.769  1.00 57.49      6
```

187

```
ATOM   10464  C    THR C 910      17.705 106.089  45.507  1.00  26.11      6
ATOM   10465  O    THR C 910      16.551 105.674  45.485  1.00  26.89      8
ATOM   10466  N    GLU C 911      18.553 105.856  46.490  1.00  42.54      7
ATOM   10467  CA   GLU C 911      18.234 105.012  47.615  1.00  45.45      6
ATOM   10468  CB   GLU C 911      19.106 105.406  48.794  1.00  56.31      6
ATOM   10469  CG   GLU C 911      19.172 104.352  49.839  1.00  62.32      6
ATOM   10470  CD   GLU C 911      20.208 104.664  50.857  1.00  65.43      6
ATOM   10471  OE1  GLU C 911      21.356 104.926  50.442  1.00  66.82      8
ATOM   10472  OE2  GLU C 911      19.874 104.646  52.062  1.00  68.96      8
ATOM   10473  C    GLU C 911      16.768 104.981  48.025  1.00  45.59      6
ATOM   10474  O    GLU C 911      16.223 103.909  48.275  1.00  47.49      8
ATOM   10475  N    PRO C 912      16.109 106.148  48.099  1.00  16.94      7
ATOM   10476  CD   PRO C 912      16.627 107.502  47.853  1.00  32.60      6
ATOM   10477  CA   PRO C 912      14.699 106.219  48.484  1.00  17.33      6
ATOM   10478  CB   PRO C 912      14.478 107.710  48.677  1.00  32.27      6
ATOM   10479  CG   PRO C 912      15.356 108.298  47.643  1.00  32.01      6
ATOM   10480  C    PRO C 912      13.778 105.631  47.423  1.00  18.58      6
ATOM   10481  O    PRO C 912      12.792 104.965  47.755  1.00  18.06      8
ATOM   10482  N    GLU C 913      14.099 105.895  46.156  1.00  40.96      7
ATOM   10483  CA   GLU C 913      13.328 105.373  45.035  1.00  42.81      6
ATOM   10484  CB   GLU C 913      13.897 105.898  43.725  1.00  69.38      6
ATOM   10485  CG   GLU C 913      13.359 107.257  43.353  1.00  74.36      6
ATOM   10486  CD   GLU C 913      14.261 108.011  42.391  1.00  77.79      6
ATOM   10487  OE1  GLU C 913      14.766 107.397  41.420  1.00  79.14      8
ATOM   10488  OE2  GLU C 913      14.450 109.232  42.603  1.00  79.35      8
ATOM   10489  C    GLU C 913      13.431 103.854  45.083  1.00  42.98      6
ATOM   10490  O    GLU C 913      12.441 103.133  44.903  1.00  43.19      8
ATOM   10491  N    ILE C 914      14.643 103.371  45.335  1.00  37.29      7
ATOM   10492  CA   ILE C 914      14.879 101.940  45.443  1.00  35.51      6
ATOM   10493  CB   ILE C 914      16.361 101.663  45.775  1.00  14.77      6
ATOM   10494  CG2  ILE C 914      16.643 100.161  45.721  1.00  13.87      6
ATOM   10495  CG1  ILE C 914      17.248 102.406  44.776  1.00  14.08      6
ATOM   10496  CD1  ILE C 914      18.680 102.473  45.189  1.00  15.40      6
ATOM   10497  C    ILE C 914      13.967 101.447  46.570  1.00  36.23      6
ATOM   10498  O    ILE C 914      13.289 100.437  46.440  1.00  35.85      8
ATOM   10499  N    LYS C 915      13.947 102.182  47.673  1.00  21.63      7
ATOM   10500  CA   LYS C 915      13.097 101.833  48.788  1.00  23.86      6
ATOM   10501  CB   LYS C 915      13.162 102.919  49.859  1.00  45.95      6
ATOM   10502  CG   LYS C 915      14.537 103.087  50.501  1.00  45.43      6
ATOM   10503  CD   LYS C 915      14.996 101.819  51.235  1.00  43.48      6
ATOM   10504  CE   LYS C 915      16.163 102.067  52.227  1.00  42.64      6
ATOM   10505  NZ   LYS C 915      17.487 102.423  51.632  1.00  40.26      7
ATOM   10506  C    LYS C 915      11.658 101.680  48.277  1.00  26.64      6
ATOM   10507  O    LYS C 915      11.008 100.654  48.523  1.00  26.46      8
ATOM   10508  N    GLU C 916      11.149 102.689  47.568  1.00  71.98      7
ATOM   10509  CA   GLU C 916       9.787 102.597  47.038  1.00  73.89      6
ATOM   10510  CB   GLU C 916       9.456 103.776  46.114  1.00  95.83      6
ATOM   10511  CG   GLU C 916       8.055 103.667  45.494  1.00  99.06      6
ATOM   10512  CD   GLU C 916       7.796 104.649  44.351  1.00101.48      6
ATOM   10513  OE1  GLU C 916       8.606 104.700  43.395  1.00102.44      8
ATOM   10514  OE2  GLU C 916       6.765 105.359  44.399  1.00103.28      8
ATOM   10515  C    GLU C 916       9.697 101.301  46.243  1.00  74.32      6
ATOM   10516  O    GLU C 916       8.837 100.458  46.500  1.00  74.55      8
ATOM   10517  N    LEU C 917      10.599 101.151  45.277  1.00  76.75      7
ATOM   10518  CA   LEU C 917      10.654  99.960  44.444  1.00  76.02      6
ATOM   10519  CB   LEU C 917      11.857 100.059  43.497  1.00  31.71      6
```

188

```
ATOM   10520  CG   LEU C 917      11.583 100.671  42.120  1.00 30.77      6
ATOM   10521  CD1  LEU C 917      12.875 101.020  41.411  1.00 30.00      6
ATOM   10522  CD2  LEU C 917      10.772  99.672  41.302  1.00 30.45      6
ATOM   10523  C    LEU C 917      10.743  98.708  45.328  1.00 75.62      6
ATOM   10524  O    LEU C 917      10.494  97.588  44.880  1.00 75.68      8
ATOM   10525  N    LEU C 918      11.100  98.919  46.590  1.00 28.41      7
ATOM   10526  CA   LEU C 918      11.201  97.849  47.570  1.00 28.59      6
ATOM   10527  CB   LEU C 918      12.400  98.081  48.483  1.00 37.23      6
ATOM   10528  CG   LEU C 918      13.752  97.539  48.051  1.00 35.84      6
ATOM   10529  CD1  LEU C 918      14.831  98.022  49.006  1.00 36.16      6
ATOM   10530  CD2  LEU C 918      13.676  96.032  48.045  1.00 36.60      6
ATOM   10531  C    LEU C 918       9.918  97.819  48.404  1.00 28.80      6
ATOM   10532  O    LEU C 918       9.526  96.772  48.940  1.00 27.28      8
ATOM   10533  N    ALA C 919       9.279  98.976  48.541  1.00 53.35      7
ATOM   10534  CA   ALA C 919       8.024  99.028  49.263  1.00 54.87      6
ATOM   10535  CB   ALA C 919       7.435 100.411  49.194  1.00 26.84      6
ATOM   10536  C    ALA C 919       7.197  98.042  48.446  1.00 56.11      6
ATOM   10537  O    ALA C 919       6.677  97.066  48.987  1.00 56.33      8
ATOM   10538  N    GLU C 920       7.108  98.291  47.135  1.00 51.97      7
ATOM   10539  CA   GLU C 920       6.401  97.383  46.229  1.00 52.59      6
ATOM   10540  CB   GLU C 920       6.403  97.892  44.780  1.00 76.15      6
ATOM   10541  CG   GLU C 920       5.676  99.214  44.537  1.00 78.37      6
ATOM   10542  CD   GLU C 920       5.596  99.579  43.054  1.00 80.29      6
ATOM   10543  OE1  GLU C 920       4.929  98.841  42.299  1.00 79.99      8
ATOM   10544  OE2  GLU C 920       6.198 100.596  42.640  1.00 80.59      8
ATOM   10545  C    GLU C 920       7.252  96.125  46.320  1.00 51.92      6
ATOM   10546  O    GLU C 920       8.288  96.138  46.979  1.00 51.86      8
ATOM   10547  N    ALA C 921       6.850  95.050  45.654  1.00 69.88      7
ATOM   10548  CA   ALA C 921       7.603  93.802  45.750  1.00 68.97      6
ATOM   10549  CB   ALA C 921       8.953  93.935  45.064  1.00 58.25      6
ATOM   10550  C    ALA C 921       7.776  93.554  47.248  1.00 68.54      6
ATOM   10551  O    ALA C 921       8.758  93.961  47.864  1.00 69.84      8
ATOM   10552  N    PHE C 922       6.770  92.914  47.821  1.00 60.62      7
ATOM   10553  CA   PHE C 922       6.698  92.583  49.238  1.00 59.45      6
ATOM   10554  CB   PHE C 922       7.273  93.670  50.152  1.00 33.67      6
ATOM   10555  CG   PHE C 922       7.014  93.408  51.625  1.00 31.30      6
ATOM   10556  CD1  PHE C 922       7.656  92.364  52.285  1.00 30.29      6
ATOM   10557  CD2  PHE C 922       6.074  94.149  52.326  1.00 30.37      6
ATOM   10558  CE1  PHE C 922       7.356  92.062  53.613  1.00 29.50      6
ATOM   10559  CE2  PHE C 922       5.775  93.847  53.651  1.00 29.79      6
ATOM   10560  CZ   PHE C 922       6.414  92.805  54.294  1.00 29.06      6
ATOM   10561  C    PHE C 922       5.212  92.526  49.462  1.00 60.82      6
ATOM   10562  O    PHE C 922       4.690  91.560  50.013  1.00 61.90      8
ATOM   10563  N    ASN C 923       4.527  93.579  49.029  1.00 97.16      7
ATOM   10564  CA   ASN C 923       3.083  93.620  49.151  1.00 97.30      6
ATOM   10565  CB   ASN C 923       2.534  94.965  48.671  1.00 91.91      6
ATOM   10566  CG   ASN C 923       2.884  96.109  49.618  1.00 92.86      6
ATOM   10567  OD1  ASN C 923       2.640  96.034  50.831  1.00 93.08      8
ATOM   10568  ND2  ASN C 923       3.453  97.175  49.069  1.00 91.46      7
ATOM   10569  C    ASN C 923       2.631  92.488  48.251  1.00 97.23      6
ATOM   10570  O    ASN C 923       1.440  92.234  48.081  1.00 98.02      8
ATOM   10571  N    LEU C 924       3.630  91.817  47.683  1.00 47.77      7
ATOM   10572  CA   LEU C 924       3.447  90.677  46.809  1.00 46.89      6
ATOM   10573  CB   LEU C 924       3.761  91.044  45.361  1.00 40.81      6
ATOM   10574  CG   LEU C 924       4.750  92.156  45.053  1.00 39.42      6
ATOM   10575  CD1  LEU C 924       4.741  92.348  43.557  1.00 40.38      6
```

189

```
ATOM  10576  CD2 LEU C 924      4.358  93.454  45.718  1.00 38.41      6
ATOM  10577  C   LEU C 924      4.357  89.567  47.293  1.00 47.08      6
ATOM  10578  O   LEU C 924      3.906  88.442  47.496  1.00 46.92      8
ATOM  10579  N   TYR C 925      5.637  89.877  47.489  1.00 48.13      7
ATOM  10580  CA  TYR C 925      6.569  88.867  47.994  1.00 48.95      6
ATOM  10581  CB  TYR C 925      7.946  89.476  48.305  1.00 49.10      6
ATOM  10582  CG  TYR C 925      8.714  88.723  49.374  1.00 49.73      6
ATOM  10583  CD1 TYR C 925      8.926  87.343  49.275  1.00 50.22      6
ATOM  10584  CE1 TYR C 925      9.569  86.624  50.300  1.00 50.15      6
ATOM  10585  CD2 TYR C 925      9.171  89.372  50.517  1.00 50.11      6
ATOM  10586  CE2 TYR C 925      9.813  88.665  51.545  1.00 50.38      6
ATOM  10587  CZ  TYR C 925     10.004  87.291  51.432  1.00 50.35      6
ATOM  10588  OH  TYR C 925     10.588  86.589  52.462  1.00 49.43      8
ATOM  10589  C   TYR C 925      5.945  88.327  49.269  1.00 49.87      6
ATOM  10590  O   TYR C 925      5.804  87.121  49.442  1.00 49.62      8
ATOM  10591  N   PHE C 926      5.571  89.243  50.154  1.00 70.22      7
ATOM  10592  CA  PHE C 926      4.935  88.883  51.407  1.00 73.05      6
ATOM  10593  CB  PHE C 926      5.209  89.934  52.482  1.00 49.65      6
ATOM  10594  CG  PHE C 926      4.766  89.513  53.844  1.00 49.63      6
ATOM  10595  CD1 PHE C 926      5.479  88.542  54.555  1.00 49.72      6
ATOM  10596  CD2 PHE C 926      3.604  90.031  54.400  1.00 50.08      6
ATOM  10597  CE1 PHE C 926      5.035  88.090  55.806  1.00 50.09      6
ATOM  10598  CE2 PHE C 926      3.149  89.587  55.649  1.00 50.98      6
ATOM  10599  CZ  PHE C 926      3.867  88.613  56.354  1.00 50.94      6
ATOM  10600  C   PHE C 926      3.435  88.805  51.157  1.00 75.68      6
ATOM  10601  O   PHE C 926      2.691  88.224  51.950  1.00 76.44      8
ATOM  10602  N   GLY C 927      2.997  89.400  50.050  1.00 51.62      7
ATOM  10603  CA  GLY C 927      1.585  89.386  49.712  1.00 53.05      6
ATOM  10604  C   GLY C 927      1.163  87.959  49.467  1.00 54.38      6
ATOM  10605  O   GLY C 927      0.029  87.571  49.738  1.00 53.67      8
ATOM  10606  N   LYS C 928      2.105  87.174  48.963  1.00 59.07      7
ATOM  10607  CA  LYS C 928      1.858  85.777  48.666  1.00 62.02      6
ATOM  10608  CB  LYS C 928      3.032  85.207  47.865  1.00171.68      6
ATOM  10609  CG  LYS C 928      3.184  85.856  46.498  1.00173.79      6
ATOM  10610  CD  LYS C 928      4.420  85.380  45.759  1.00175.33      6
ATOM  10611  CE  LYS C 928      4.557  86.110  44.428  1.00175.69      6
ATOM  10612  NZ  LYS C 928      5.766  85.701  43.661  1.00176.89      7
ATOM  10613  C   LYS C 928      1.594  84.932  49.915  1.00 62.87      6
ATOM  10614  O   LYS C 928      0.695  84.093  49.905  1.00 62.54      8
ATOM  10615  N   ARG C 929      2.361  85.139  50.983  1.00 75.41      7
ATOM  10616  CA  ARG C 929      2.149  84.365  52.204  1.00 77.55      6
ATOM  10617  CB  ARG C 929      2.950  84.936  53.367  1.00 98.13      6
ATOM  10618  CG  ARG C 929      4.445  84.810  53.252  1.00100.19      6
ATOM  10619  CD  ARG C 929      5.047  85.113  54.600  1.00101.93      6
ATOM  10620  NE  ARG C 929      6.473  85.380  54.531  1.00104.27      7
ATOM  10621  CZ  ARG C 929      7.211  85.688  55.589  1.00105.59      6
ATOM  10622  NH1 ARG C 929      6.645  85.762  56.786  1.00106.10      7
ATOM  10623  NH2 ARG C 929      8.508  85.927  55.451  1.00106.46      7
ATOM  10624  C   ARG C 929      0.679  84.422  52.577  1.00 78.07      6
ATOM  10625  O   ARG C 929      0.012  83.402  52.746  1.00 77.62      8
ATOM  10626  N   GLN C 930      0.182  85.639  52.713  1.00121.34      7
ATOM  10627  CA  GLN C 930     -1.207  85.851  53.055  1.00122.36      6
ATOM  10628  CB  GLN C 930     -1.381  87.300  53.500  1.00 77.50      6
ATOM  10629  CG  GLN C 930     -0.426  87.669  54.638  1.00 78.01      6
ATOM  10630  CD  GLN C 930     -0.246  89.163  54.808  1.00 77.89      6
ATOM  10631  OE1 GLN C 930      0.218  89.850  53.899  1.00 78.54      8
```

190

```
ATOM  10632  NE2 GLN C 930      -0.608  89.674  55.979  1.00 77.85     7
ATOM  10633  C   GLN C 930      -2.028  85.528  51.808  1.00122.93     6
ATOM  10634  O   GLN C 930      -3.102  86.080  51.578  1.00124.12     8
ATOM  10635  N   GLY C 931      -1.483  84.621  51.005  1.00137.15     7
ATOM  10636  CA  GLY C 931      -2.126  84.178  49.784  1.00136.42     6
ATOM  10637  C   GLY C 931      -2.051  82.665  49.784  1.00136.00     6
ATOM  10638  O   GLY C 931      -3.078  81.992  49.850  1.00136.17     8
ATOM  10639  N   GLU C 932      -0.835  82.126  49.717  1.00 96.18     7
ATOM  10640  CA  GLU C 932      -0.652  80.679  49.748  1.00 94.52     6
ATOM  10641  CB  GLU C 932       0.832  80.308  49.755  1.00 76.46     6
ATOM  10642  CG  GLU C 932       1.612  80.799  48.551  1.00 76.62     6
ATOM  10643  CD  GLU C 932       3.082  80.389  48.588  1.00 76.70     6
ATOM  10644  OE1 GLU C 932       3.776  80.708  49.581  1.00 76.25     8
ATOM  10645  OE2 GLU C 932       3.543  79.752  47.618  1.00 76.53     8
ATOM  10646  C   GLU C 932      -1.292  80.203  51.043  1.00 93.61     6
ATOM  10647  O   GLU C 932      -1.656  79.035  51.177  1.00 93.06     8
ATOM  10648  N   GLY C 933      -1.421  81.131  51.990  1.00182.25     7
ATOM  10649  CA  GLY C 933      -2.022  80.828  53.275  1.00180.72     6
ATOM  10650  C   GLY C 933      -1.011  80.659  54.392  1.00179.07     6
ATOM  10651  O   GLY C 933      -1.071  79.679  55.136  1.00179.86     8
ATOM  10652  N   PHE C 934      -0.082  81.605  54.518  1.00 81.73     7
ATOM  10653  CA  PHE C 934       0.939  81.529  55.563  1.00 78.85     6
ATOM  10654  CB  PHE C 934       2.186  80.805  55.044  1.00 70.78     6
ATOM  10655  CG  PHE C 934       1.906  79.438  54.477  1.00 69.68     6
ATOM  10656  CD1 PHE C 934       1.658  79.268  53.119  1.00 69.14     6
ATOM  10657  CD2 PHE C 934       1.875  78.319  55.306  1.00 69.73     6
ATOM  10658  CE1 PHE C 934       1.385  78.006  52.596  1.00 68.85     6
ATOM  10659  CE2 PHE C 934       1.603  77.052  54.790  1.00 69.66     6
ATOM  10660  CZ  PHE C 934       1.358  76.898  53.432  1.00 68.78     6
ATOM  10661  C   PHE C 934       1.344  82.894  56.115  1.00 77.20     6
ATOM  10662  O   PHE C 934       0.860  83.933  55.658  1.00 77.60     8
ATOM  10663  N   GLY C 935       2.239  82.877  57.102  1.00 94.36     7
ATOM  10664  CA  GLY C 935       2.701  84.116  57.706  1.00 91.73     6
ATOM  10665  C   GLY C 935       3.684  83.935  58.851  1.00 89.40     6
ATOM  10666  O   GLY C 935       3.509  83.044  59.683  1.00 89.89     8
ATOM  10667  N   VAL C 936       4.709  84.789  58.883  1.00 34.92     7
ATOM  10668  CA  VAL C 936       5.756  84.769  59.904  1.00 31.78     6
ATOM  10669  CB  VAL C 936       5.643  85.989  60.820  1.00 33.96     6
ATOM  10670  CG1 VAL C 936       6.439  85.766  62.093  1.00 34.87     6
ATOM  10671  CG2 VAL C 936       6.152  87.218  60.098  1.00 34.76     6
ATOM  10672  C   VAL C 936       5.805  83.533  60.789  1.00 30.62     6
ATOM  10673  O   VAL C 936       4.878  83.279  61.560  1.00 29.99     8
ATOM  10674  N   ASP C 937       6.889  82.765  60.700  1.00 37.82     7
ATOM  10675  CA  ASP C 937       6.982  81.570  61.532  1.00 37.19     6
ATOM  10676  CB  ASP C 937       7.300  80.298  60.698  1.00 68.96     6
ATOM  10677  CG  ASP C 937       8.745  80.205  60.246  1.00 69.34     6
ATOM  10678  OD1 ASP C 937       9.644  80.352  61.093  1.00 70.00     8
ATOM  10679  OD2 ASP C 937       8.977  79.952  59.045  1.00 69.42     8
ATOM  10680  C   ASP C 937       7.950  81.726  62.683  1.00 36.14     6
ATOM  10681  O   ASP C 937       8.763  82.647  62.704  1.00 34.12     8
ATOM  10682  N   LYS C 938       7.831  80.817  63.643  1.00 49.63     7
ATOM  10683  CA  LYS C 938       8.638  80.826  64.848  1.00 51.96     6
ATOM  10684  CB  LYS C 938       8.492  79.480  65.567  1.00 78.51     6
ATOM  10685  CG  LYS C 938       7.035  79.154  65.921  1.00 79.62     6
ATOM  10686  CD  LYS C 938       6.884  77.942  66.850  1.00 80.06     6
ATOM  10687  CE  LYS C 938       7.147  78.286  68.328  1.00 80.47     6
```

```
ATOM   10688  NZ   LYS C 938      6.106  79.166  68.954  1.00 81.04      7
ATOM   10689  C    LYS C 938     10.112  81.196  64.660  1.00 53.10      6
ATOM   10690  O    LYS C 938     10.799  81.510  65.637  1.00 53.64      8
ATOM   10691  N    ARG C 939     10.595  81.186  63.419  1.00 54.14      7
ATOM   10692  CA   ARG C 939     11.984  81.546  63.135  1.00 54.30      6
ATOM   10693  CB   ARG C 939     12.458  80.847  61.873  1.00 51.97      6
ATOM   10694  CG   ARG C 939     12.390  79.357  61.949  1.00 53.03      6
ATOM   10695  CD   ARG C 939     11.810  78.850  60.674  1.00 54.13      6
ATOM   10696  NE   ARG C 939     12.529  77.699  60.181  1.00 54.99      7
ATOM   10697  CZ   ARG C 939     12.297  77.165  58.996  1.00 57.20      6
ATOM   10698  NH1  ARG C 939     11.370  77.695  58.213  1.00 57.62      7
ATOM   10699  NH2  ARG C 939     12.983  76.110  58.596  1.00 59.96      7
ATOM   10700  C    ARG C 939     12.118  83.054  62.941  1.00 54.06      6
ATOM   10701  O    ARG C 939     12.950  83.706  63.576  1.00 55.43      8
ATOM   10702  N    GLU C 940     11.305  83.596  62.042  1.00 20.90      7
ATOM   10703  CA   GLU C 940     11.314  85.022  61.775  1.00 20.56      6
ATOM   10704  CB   GLU C 940     10.301  85.363  60.676  1.00 46.34      6
ATOM   10705  CG   GLU C 940     10.352  84.402  59.500  1.00 44.16      6
ATOM   10706  CD   GLU C 940      9.423  84.787  58.372  1.00 41.54      6
ATOM   10707  OE1  GLU C 940      9.785  85.691  57.599  1.00 41.51      8
ATOM   10708  OE2  GLU C 940      8.335  84.186  58.258  1.00 40.41      8
ATOM   10709  C    GLU C 940     10.950  85.745  63.076  1.00 21.44      6
ATOM   10710  O    GLU C 940     11.182  86.942  63.226  1.00 20.60      8
ATOM   10711  N    LYS C 941     10.357  85.027  64.021  1.00 85.59      7
ATOM   10712  CA   LYS C 941     10.042  85.669  65.282  1.00 87.93      6
ATOM   10713  CB   LYS C 941      9.091  84.824  66.129  1.00 88.47      6
ATOM   10714  CG   LYS C 941      7.633  85.103  65.821  1.00 89.73      6
ATOM   10715  CD   LYS C 941      6.770  85.026  67.065  1.00 91.30      6
ATOM   10716  CE   LYS C 941      5.392  85.615  66.795  1.00 92.39      6
ATOM   10717  NZ   LYS C 941      4.610  85.825  68.048  1.00 94.10      7
ATOM   10718  C    LYS C 941     11.368  85.836  65.988  1.00 88.95      6
ATOM   10719  O    LYS C 941     11.709  86.940  66.410  1.00 90.48      8
ATOM   10720  N    GLU C 942     12.123  84.743  66.097  1.00 54.45      7
ATOM   10721  CA   GLU C 942     13.425  84.797  66.742  1.00 53.66      6
ATOM   10722  CB   GLU C 942     14.197  83.497  66.536  1.00113.49      6
ATOM   10723  CG   GLU C 942     13.642  82.318  67.296  1.00117.32      6
ATOM   10724  CD   GLU C 942     14.718  81.323  67.680  1.00119.34      6
ATOM   10725  OE1  GLU C 942     15.474  80.878  66.790  1.00120.23      8
ATOM   10726  OE2  GLU C 942     14.808  80.987  68.878  1.00120.12      8
ATOM   10727  C    GLU C 942     14.229  85.942  66.154  1.00 52.80      6
ATOM   10728  O    GLU C 942     14.663  86.846  66.871  1.00 53.14      8
ATOM   10729  N    VAL C 943     14.416  85.903  64.839  1.00 65.20      7
ATOM   10730  CA   VAL C 943     15.179  86.935  64.162  1.00 63.66      6
ATOM   10731  CB   VAL C 943     15.104  86.765  62.640  1.00 61.57      6
ATOM   10732  CG1  VAL C 943     15.758  87.945  61.941  1.00 61.54      6
ATOM   10733  CG2  VAL C 943     15.810  85.478  62.252  1.00 61.38      6
ATOM   10734  C    VAL C 943     14.724  88.328  64.567  1.00 62.96      6
ATOM   10735  O    VAL C 943     15.293  88.893  65.480  1.00 63.98      8
ATOM   10736  N    LEU C 944     13.708  88.873  63.906  1.00 13.88      7
ATOM   10737  CA   LEU C 944     13.207  90.211  64.224  1.00 13.87      6
ATOM   10738  CB   LEU C 944     11.698  90.287  64.018  1.00 46.25      6
ATOM   10739  CG   LEU C 944     11.102  90.011  62.642  1.00 47.00      6
ATOM   10740  CD1  LEU C 944      9.596  89.914  62.772  1.00 48.47      6
ATOM   10741  CD2  LEU C 944     11.493  91.105  61.674  1.00 47.73      6
ATOM   10742  C    LEU C 944     13.501  90.618  65.657  1.00 13.87      6
ATOM   10743  O    LEU C 944     14.149  91.625  65.909  1.00 13.87      8
```

192

```
ATOM  10744  N   ALA C 945     13.018  89.825  66.600  1.00 31.01      7
ATOM  10745  CA  ALA C 945     13.224  90.105  68.012  1.00 31.66      6
ATOM  10746  CB  ALA C 945     12.505  89.050  68.857  1.00 40.26      6
ATOM  10747  C   ALA C 945     14.703  90.139  68.371  1.00 32.39      6
ATOM  10748  O   ALA C 945     15.067  90.102  69.542  1.00 31.76      8
ATOM  10749  N   ARG C 946     15.550  90.209  67.356  1.00 27.49      7
ATOM  10750  CA  ARG C 946     17.002  90.232  67.528  1.00 29.39      6
ATOM  10751  CB  ARG C 946     17.605  88.875  67.147  1.00 67.26      6
ATOM  10752  CG  ARG C 946     19.133  88.814  67.154  1.00 69.40      6
ATOM  10753  CD  ARG C 946     19.618  87.450  66.666  1.00 70.98      6
ATOM  10754  NE  ARG C 946     21.073  87.322  66.608  1.00 73.54      7
ATOM  10755  CZ  ARG C 946     21.887  88.201  66.030  1.00 75.59      6
ATOM  10756  NH1 ARG C 946     21.398  89.292  65.464  1.00 78.24      7
ATOM  10757  NH2 ARG C 946     23.193  87.972  65.986  1.00 76.01      7
ATOM  10758  C   ARG C 946     17.558  91.298  66.613  1.00 30.19      6
ATOM  10759  O   ARG C 946     18.556  91.915  66.914  1.00 30.17      8
ATOM  10760  N   ALA C 947     16.903  91.491  65.480  1.00 46.59      7
ATOM  10761  CA  ALA C 947     17.327  92.494  64.533  1.00 49.44      6
ATOM  10762  CB  ALA C 947     16.593  92.324  63.218  1.00 95.40      6
ATOM  10763  C   ALA C 947     16.963  93.811  65.167  1.00 51.92      6
ATOM  10764  O   ALA C 947     17.796  94.709  65.275  1.00 53.44      8
ATOM  10765  N   GLU C 948     15.714  93.922  65.608  1.00 60.56      7
ATOM  10766  CA  GLU C 948     15.259  95.158  66.241  1.00 61.87      6
ATOM  10767  CB  GLU C 948     13.788  95.059  66.681  1.00 79.09      6
ATOM  10768  CG  GLU C 948     13.535  94.385  68.026  1.00 79.19      6
ATOM  10769  CD  GLU C 948     12.111  94.612  68.520  1.00 79.55      6
ATOM  10770  OE1 GLU C 948     11.166  94.043  67.933  1.00 78.09      8
ATOM  10771  OE2 GLU C 948     11.939  95.375  69.492  1.00 80.91      8
ATOM  10772  C   GLU C 948     16.152  95.437  67.441  1.00 62.71      6
ATOM  10773  O   GLU C 948     16.448  96.593  67.750  1.00 63.17      8
ATOM  10774  N   LYS C 949     16.582  94.370  68.111  1.00 43.00      7
ATOM  10775  CA  LYS C 949     17.469  94.516  69.250  1.00 44.20      6
ATOM  10776  CB  LYS C 949     17.738  93.164  69.915  1.00150.66      6
ATOM  10777  CG  LYS C 949     16.517  92.557  70.571  1.00153.51      6
ATOM  10778  CD  LYS C 949     16.856  91.962  71.925  1.00155.35      6
ATOM  10779  CE  LYS C 949     15.590  91.583  72.675  1.00157.45      6
ATOM  10780  NZ  LYS C 949     15.878  91.193  74.081  1.00158.39      7
ATOM  10781  C   LYS C 949     18.763  95.109  68.724  1.00 44.37      6
ATOM  10782  O   LYS C 949     19.415  95.884  69.404  1.00 45.20      8
ATOM  10783  N   LEU C 950     19.134  94.737  67.503  1.00 48.12      7
ATOM  10784  CA  LEU C 950     20.341  95.261  66.889  1.00 48.09      6
ATOM  10785  CB  LEU C 950     20.821  94.377  65.734  1.00 62.51      6
ATOM  10786  CG  LEU C 950     21.093  92.870  65.817  1.00 64.28      6
ATOM  10787  CD1 LEU C 950     21.011  92.297  64.415  1.00 64.42      6
ATOM  10788  CD2 LEU C 950     22.451  92.568  66.436  1.00 64.51      6
ATOM  10789  C   LEU C 950     19.855  96.554  66.304  1.00 47.97      6
ATOM  10790  O   LEU C 950     20.254  96.917  65.224  1.00 49.44      8
ATOM  10791  N   GLY C 951     18.948  97.230  66.994  1.00 44.24      7
ATOM  10792  CA  GLY C 951     18.428  98.490  66.486  1.00 44.50      6
ATOM  10793  C   GLY C 951     18.345  98.522  64.973  1.00 44.20      6
ATOM  10794  O   GLY C 951     18.700  99.498  64.316  1.00 45.36      8
ATOM  10795  N   LEU C 952     17.860  97.433  64.412  1.00 70.80      7
ATOM  10796  CA  LEU C 952     17.760  97.328  62.976  1.00 70.81      6
ATOM  10797  CB  LEU C 952     18.164  95.925  62.559  1.00 36.46      6
ATOM  10798  CG  LEU C 952     18.891  95.807  61.242  1.00 36.82      6
ATOM  10799  CD1 LEU C 952     20.214  96.528  61.332  1.00 37.99      6
```

193

ATOM	10800	CD2	LEU	C	952	19.089	94.354	60.949	1.00	36.94	6
ATOM	10801	C	LEU	C	952	16.336	97.600	62.535	1.00	70.39	6
ATOM	10802	O	LEU	C	952	16.099	98.135	61.456	1.00	70.61	8
ATOM	10803	N	VAL	C	953	15.392	97.223	63.385	1.00	62.37	7
ATOM	10804	CA	VAL	C	953	13.988	97.393	63.091	1.00	62.11	6
ATOM	10805	CB	VAL	C	953	13.307	96.031	63.028	1.00	71.67	6
ATOM	10806	CG1	VAL	C	953	11.856	96.192	62.713	1.00	71.05	6
ATOM	10807	CG2	VAL	C	953	13.974	95.179	61.985	1.00	73.42	6
ATOM	10808	C	VAL	C	953	13.346	98.221	64.185	1.00	62.31	6
ATOM	10809	O	VAL	C	953	13.832	98.240	65.317	1.00	62.52	8
ATOM	10810	N	SER	C	954	12.254	98.902	63.839	1.00	75.89	7
ATOM	10811	CA	SER	C	954	11.515	99.740	64.784	1.00	76.21	6
ATOM	10812	CB	SER	C	954	10.534	100.647	64.038	1.00	121.45	6
ATOM	10813	OG	SER	C	954	11.206	101.489	63.118	1.00	122.82	8
ATOM	10814	C	SER	C	954	10.742	98.880	65.778	1.00	76.00	6
ATOM	10815	O	SER	C	954	9.750	98.238	65.422	1.00	76.67	8
ATOM	10816	N	PRO	C	955	11.181	98.867	67.046	1.00	47.70	7
ATOM	10817	CD	PRO	C	955	12.156	99.785	67.661	1.00	36.08	6
ATOM	10818	CA	PRO	C	955	10.509	98.069	68.070	1.00	47.53	6
ATOM	10819	CB	PRO	C	955	11.396	98.275	69.285	1.00	35.83	6
ATOM	10820	CG	PRO	C	955	11.806	99.689	69.128	1.00	36.13	6
ATOM	10821	C	PRO	C	955	9.131	98.648	68.247	1.00	48.20	6
ATOM	10822	O	PRO	C	955	8.917	99.813	67.942	1.00	48.98	8
ATOM	10823	N	GLY	C	956	8.192	97.852	68.720	1.00	86.50	7
ATOM	10824	CA	GLY	C	956	6.860	98.386	68.889	1.00	87.54	6
ATOM	10825	C	GLY	C	956	5.995	98.058	67.694	1.00	87.54	6
ATOM	10826	O	GLY	C	956	4.778	97.956	67.818	1.00	88.81	8
ATOM	10827	N	LYS	C	957	6.604	97.914	66.525	1.00	49.31	7
ATOM	10828	CA	LYS	C	957	5.821	97.554	65.352	1.00	49.18	6
ATOM	10829	CB	LYS	C	957	6.596	97.823	64.057	1.00	111.66	6
ATOM	10830	CG	LYS	C	957	6.761	99.307	63.767	1.00	114.51	6
ATOM	10831	CD	LYS	C	957	7.102	99.596	62.310	1.00	115.70	6
ATOM	10832	CE	LYS	C	957	7.133	101.105	62.052	1.00	116.34	6
ATOM	10833	NZ	LYS	C	957	7.318	101.456	60.615	1.00	116.73	7
ATOM	10834	C	LYS	C	957	5.515	96.071	65.495	1.00	48.39	6
ATOM	10835	O	LYS	C	957	6.041	95.411	66.397	1.00	48.18	8
ATOM	10836	N	SER	C	958	4.662	95.548	64.624	1.00	49.36	7
ATOM	10837	CA	SER	C	958	4.292	94.140	64.682	1.00	48.83	6
ATOM	10838	CB	SER	C	958	3.021	93.918	63.894	1.00	39.20	6
ATOM	10839	OG	SER	C	958	3.321	93.957	62.515	1.00	39.36	8
ATOM	10840	C	SER	C	958	5.388	93.311	64.047	1.00	47.48	6
ATOM	10841	O	SER	C	958	6.341	93.854	63.509	1.00	48.45	8
ATOM	10842	N	PRO	C	959	5.278	91.978	64.099	1.00	33.17	7
ATOM	10843	CD	PRO	C	959	4.193	91.077	64.519	1.00	60.72	6
ATOM	10844	CA	PRO	C	959	6.351	91.224	63.460	1.00	32.55	6
ATOM	10845	CB	PRO	C	959	5.967	89.785	63.756	1.00	60.49	6
ATOM	10846	CG	PRO	C	959	4.470	89.844	63.691	1.00	60.58	6
ATOM	10847	C	PRO	C	959	6.273	91.549	61.969	1.00	32.42	6
ATOM	10848	O	PRO	C	959	7.193	92.108	61.382	1.00	33.33	8
ATOM	10849	N	GLU	C	960	5.142	91.211	61.371	1.00	28.89	7
ATOM	10850	CA	GLU	C	960	4.928	91.476	59.967	1.00	28.90	6
ATOM	10851	CB	GLU	C	960	3.441	91.334	59.651	1.00	76.30	6
ATOM	10852	CG	GLU	C	960	3.049	91.816	58.276	1.00	80.08	6
ATOM	10853	CD	GLU	C	960	1.625	91.448	57.930	1.00	82.04	6
ATOM	10854	OE1	GLU	C	960	1.090	91.992	56.939	1.00	83.71	8
ATOM	10855	OE2	GLU	C	960	1.042	90.609	58.649	1.00	83.11	8

194

```
ATOM   10856  C   GLU C 960      5.432  92.859  59.558  1.00 27.63      6
ATOM   10857  O   GLU C 960      6.114  92.999  58.551  1.00 27.27      8
ATOM   10858  N   GLU C 961      5.098  93.880  60.338  1.00 43.98      7
ATOM   10859  CA  GLU C 961      5.534  95.246  60.032  1.00 43.39      6
ATOM   10860  CB  GLU C 961      4.912  96.257  61.009  1.00128.06      6
ATOM   10861  CG  GLU C 961      3.405  96.441  60.885  1.00131.38      6
ATOM   10862  CD  GLU C 961      2.877  97.558  61.773  1.00132.41      6
ATOM   10863  OE1 GLU C 961      3.203  98.736  61.515  1.00132.88      8
ATOM   10864  OE2 GLU C 961      2.136  97.261  62.732  1.00132.88      8
ATOM   10865  C   GLU C 961      7.051  95.391  60.088  1.00 41.36      6
ATOM   10866  O   GLU C 961      7.615  96.258  59.422  1.00 40.70      8
ATOM   10867  N   GLN C 962      7.697  94.547  60.892  1.00 54.22      7
ATOM   10868  CA  GLN C 962      9.148  94.570  61.057  1.00 52.66      6
ATOM   10869  CB  GLN C 962      9.525  93.854  62.358  1.00 76.65      6
ATOM   10870  CG  GLN C 962      8.944  94.523  63.605  1.00 77.86      6
ATOM   10871  CD  GLN C 962      9.128  93.703  64.870  1.00 79.19      6
ATOM   10872  OE1 GLN C 962     10.219  93.645  65.436  1.00 79.81      8
ATOM   10873  NE2 GLN C 962      8.056  93.055  65.315  1.00 79.30      7
ATOM   10874  C   GLN C 962      9.840  93.922  59.859  1.00 51.03      6
ATOM   10875  O   GLN C 962     11.014  94.180  59.572  1.00 50.46      8
ATOM   10876  N   LEU C 963      9.095  93.078  59.157  1.00 50.36      7
ATOM   10877  CA  LEU C 963      9.622  92.421  57.980  1.00 47.74      6
ATOM   10878  CB  LEU C 963      8.699  91.281  57.533  1.00 29.07      6
ATOM   10879  CG  LEU C 963      9.082  89.853  57.947  1.00 27.38      6
ATOM   10880  CD1 LEU C 963     10.346  89.418  57.215  1.00 27.54      6
ATOM   10881  CD2 LEU C 963      9.284  89.793  59.437  1.00 25.57      6
ATOM   10882  C   LEU C 963      9.779  93.453  56.872  1.00 46.95      6
ATOM   10883  O   LEU C 963     10.871  93.603  56.344  1.00 47.63      8
ATOM   10884  N   LYS C 964      8.712  94.176  56.528  1.00 53.49      7
ATOM   10885  CA  LYS C 964      8.823  95.183  55.469  1.00 52.34      6
ATOM   10886  CB  LYS C 964      7.543  95.973  55.284  1.00 35.19      6
ATOM   10887  CG  LYS C 964      7.530  96.706  53.961  1.00 34.10      6
ATOM   10888  CD  LYS C 964      6.712  97.960  54.027  1.00 34.27      6
ATOM   10889  CE  LYS C 964      5.797  98.098  52.817  1.00 34.44      6
ATOM   10890  NZ  LYS C 964      4.535  97.281  52.888  1.00 32.98      7
ATOM   10891  C   LYS C 964      9.911  96.161  55.840  1.00 52.66      6
ATOM   10892  O   LYS C 964     10.628  96.682  54.987  1.00 52.76      8
ATOM   10893  N   GLU C 965     10.013  96.431  57.129  1.00 54.32      7
ATOM   10894  CA  GLU C 965     11.044  97.320  57.599  1.00 54.17      6
ATOM   10895  CB  GLU C 965     10.964  97.413  59.126  1.00111.33      6
ATOM   10896  CG  GLU C 965     12.015  98.289  59.773  1.00115.20      6
ATOM   10897  CD  GLU C 965     11.470  99.102  60.928  1.00118.03      6
ATOM   10898  OE1 GLU C 965     10.725  98.545  61.757  1.00119.25      8
ATOM   10899  OE2 GLU C 965     11.797 100.303  61.010  1.00120.17      8
ATOM   10900  C   GLU C 965     12.357  96.676  57.128  1.00 52.71      6
ATOM   10901  O   GLU C 965     13.047  97.203  56.247  1.00 52.60      8
ATOM   10902  N   LEU C 966     12.654  95.503  57.682  1.00 37.42      7
ATOM   10903  CA  LEU C 966     13.869  94.749  57.370  1.00 35.38      6
ATOM   10904  CB  LEU C 966     13.952  93.571  58.358  1.00 17.23      6
ATOM   10905  CG  LEU C 966     15.251  92.975  58.927  1.00 13.87      6
ATOM   10906  CD1 LEU C 966     15.997  93.982  59.793  1.00 13.87      6
ATOM   10907  CD2 LEU C 966     14.897  91.746  59.751  1.00 13.87      6
ATOM   10908  C   LEU C 966     13.965  94.238  55.904  1.00 36.67      6
ATOM   10909  O   LEU C 966     14.823  93.408  55.600  1.00 37.76      8
ATOM   10910  N   PHE C 967     13.108  94.730  55.000  1.00 58.31      7
ATOM   10911  CA  PHE C 967     13.112  94.285  53.589  1.00 58.86      6
```

195

```
ATOM    10912  CB   PHE C 967      11.735  93.705  53.178  1.00  27.21      6
ATOM    10913  CG   PHE C 967      11.721  93.011  51.815  1.00  21.93      6
ATOM    10914  CD1  PHE C 967      12.201  91.708  51.664  1.00  19.84      6
ATOM    10915  CD2  PHE C 967      11.231  93.656  50.683  1.00  19.36      6
ATOM    10916  CE1  PHE C 967      12.188  91.065  50.406  1.00  17.42      6
ATOM    10917  CE2  PHE C 967      11.225  93.007  49.432  1.00  17.33      6
ATOM    10918  CZ   PHE C 967      11.703  91.714  49.302  1.00  14.58      6
ATOM    10919  C    PHE C 967      13.476  95.399  52.614  1.00  61.43      6
ATOM    10920  O    PHE C 967      13.977  95.129  51.528  1.00  62.22      8
ATOM    10921  N    ASP C 968      13.200  96.646  52.979  1.00  48.15      7
ATOM    10922  CA   ASP C 968      13.536  97.769  52.101  1.00  50.92      6
ATOM    10923  CB   ASP C 968      12.656  98.972  52.406  1.00  71.89      6
ATOM    10924  CG   ASP C 968      11.206  98.690  52.154  1.00  73.56      6
ATOM    10925  OD1  ASP C 968      10.783  98.696  50.979  1.00  73.95      8
ATOM    10926  OD2  ASP C 968      10.485  98.443  53.137  1.00  75.60      8
ATOM    10927  C    ASP C 968      14.982  98.113  52.372  1.00  52.13      6
ATOM    10928  O    ASP C 968      15.369  99.275  52.420  1.00  52.55      8
ATOM    10929  N    LEU C 969      15.775  97.066  52.549  1.00  45.64      7
ATOM    10930  CA   LEU C 969      17.186  97.185  52.853  1.00  48.17      6
ATOM    10931  CB   LEU C 969      17.338  97.756  54.265  1.00  83.58      6
ATOM    10932  CG   LEU C 969      18.722  97.909  54.885  1.00  86.40      6
ATOM    10933  CD1  LEU C 969      19.554  98.799  53.988  1.00  86.57      6
ATOM    10934  CD2  LEU C 969      18.604  98.481  56.301  1.00  86.42      6
ATOM    10935  C    LEU C 969      17.725  95.762  52.786  1.00  49.26      6
ATOM    10936  O    LEU C 969      17.904  95.218  51.701  1.00  50.41      8
ATOM    10937  N    GLY C 970      17.943  95.159  53.953  1.00138.99      7
ATOM    10938  CA   GLY C 970      18.459  93.803  54.027  1.00139.96      6
ATOM    10939  C    GLY C 970      17.603  92.776  53.314  1.00141.08      6
ATOM    10940  O    GLY C 970      17.399  92.865  52.104  1.00142.08      8
ATOM    10941  N    ALA C 971      17.108  91.791  54.058  1.00  39.12      7
ATOM    10942  CA   ALA C 971      16.278  90.750  53.465  1.00  39.29      6
ATOM    10943  CB   ALA C 971      17.041  90.047  52.347  1.00136.93      6
ATOM    10944  C    ALA C 971      15.788  89.727  54.473  1.00  39.12      6
ATOM    10945  O    ALA C 971      16.510  89.333  55.388  1.00  38.04      8
ATOM    10946  N    VAL C 972      14.551  89.287  54.269  1.00  89.84      7
ATOM    10947  CA   VAL C 972      13.889  88.321  55.145  1.00  90.03      6
ATOM    10948  CB   VAL C 972      12.694  87.637  54.415  1.00120.54      6
ATOM    10949  CG1  VAL C 972      12.163  86.465  55.235  1.00121.75      6
ATOM    10950  CG2  VAL C 972      11.580  88.651  54.198  1.00120.73      6
ATOM    10951  C    VAL C 972      14.776  87.242  55.751  1.00  88.80      6
ATOM    10952  O    VAL C 972      15.556  86.602  55.054  1.00  89.74      8
ATOM    10953  N    VAL C 973      14.624  87.074  57.064  1.00  44.14      7
ATOM    10954  CA   VAL C 973      15.336  86.095  57.867  1.00  42.44      6
ATOM    10955  CB   VAL C 973      14.360  85.040  58.409  1.00117.04      6
ATOM    10956  CG1  VAL C 973      15.125  83.926  59.105  1.00118.69      6
ATOM    10957  CG2  VAL C 973      13.382  85.691  59.363  1.00117.10      6
ATOM    10958  C    VAL C 973      16.472  85.380  57.162  1.00  40.58      6
ATOM    10959  O    VAL C 973      17.628  85.511  57.568  1.00  41.57      8
ATOM    10960  N    LEU C 974      16.132  84.611  56.128  1.00  35.09      7
ATOM    10961  CA   LEU C 974      17.099  83.863  55.316  1.00  33.19      6
ATOM    10962  CB   LEU C 974      18.260  84.739  54.844  1.00  46.09      6
ATOM    10963  CG   LEU C 974      19.219  83.956  53.951  1.00  46.48      6
ATOM    10964  CD1  LEU C 974      18.463  83.464  52.734  1.00  45.62      6
ATOM    10965  CD2  LEU C 974      20.377  84.821  53.546  1.00  47.11      6
ATOM    10966  C    LEU C 974      17.677  82.652  56.000  1.00  32.57      6
ATOM    10967  O    LEU C 974      18.799  82.667  56.516  1.00  32.45      8
```

196

```
ATOM   10968  N    TYR C 975      16.890  81.592  55.965  1.00  70.40      7
ATOM   10969  CA   TYR C 975      17.238  80.315  56.548  1.00  68.80      6
ATOM   10970  CB   TYR C 975      16.149  79.325  56.198  1.00  27.41      6
ATOM   10971  CG   TYR C 975      14.769  79.820  56.532  1.00  25.12      6
ATOM   10972  CD1  TYR C 975      13.834  80.059  55.538  1.00  24.63      6
ATOM   10973  CE1  TYR C 975      12.547  80.421  55.854  1.00  22.23      6
ATOM   10974  CD2  TYR C 975      14.378  79.974  57.852  1.00  23.45      6
ATOM   10975  CE2  TYR C 975      13.101  80.338  58.179  1.00  21.24      6
ATOM   10976  CZ   TYR C 975      12.188  80.550  57.183  1.00  21.50      6
ATOM   10977  OH   TYR C 975      10.893  80.819  57.539  1.00  22.82      8
ATOM   10978  C    TYR C 975      18.566  79.796  56.036  1.00  69.49      6
ATOM   10979  O    TYR C 975      19.305  80.501  55.352  1.00  70.73      8
ATOM   10980  N    ASP C 976      18.854  78.546  56.374  1.00  19.13      7
ATOM   10981  CA   ASP C 976      20.084  77.886  55.955  1.00  19.58      6
ATOM   10982  CB   ASP C 976      21.166  78.029  57.039  1.00  77.17      6
ATOM   10983  CG   ASP C 976      22.472  77.321  56.680  1.00  79.95      6
ATOM   10984  OD1  ASP C 976      22.873  77.346  55.495  1.00  82.04      8
ATOM   10985  OD2  ASP C 976      23.110  76.752  57.593  1.00  80.48      8
ATOM   10986  C    ASP C 976      19.751  76.426  55.717  1.00  19.50      6
ATOM   10987  O    ASP C 976      19.877  75.596  56.622  1.00  19.09      8
ATOM   10988  N    GLY C 977      19.318  76.134  54.490  1.00  14.07      7
ATOM   10989  CA   GLY C 977      18.939  74.784  54.087  1.00  14.99      6
ATOM   10990  C    GLY C 977      19.825  73.665  54.582  1.00  16.05      6
ATOM   10991  O    GLY C 977      19.477  72.492  54.505  1.00  13.87      8
ATOM   10992  N    ARG C 978      20.969  74.063  55.105  1.00  40.37      7
ATOM   10993  CA   ARG C 978      21.967  73.164  55.629  1.00  44.82      6
ATOM   10994  CB   ARG C 978      23.320  73.874  55.566  1.00 103.56      6
ATOM   10995  CG   ARG C 978      24.531  73.079  56.011  1.00 107.10      6
ATOM   10996  CD   ARG C 978      25.659  74.056  56.305  1.00 109.68      6
ATOM   10997  NE   ARG C 978      26.825  73.873  55.452  1.00 112.29      7
ATOM   10998  CZ   ARG C 978      27.796  74.771  55.336  1.00 114.08      6
ATOM   10999  NH1  ARG C 978      27.726  75.908  56.014  1.00 113.40      7
ATOM   11000  NH2  ARG C 978      28.838  74.531  54.552  1.00 115.71      7
ATOM   11001  C    ARG C 978      21.645  72.756  57.064  1.00  45.91      6
ATOM   11002  O    ARG C 978      21.592  71.569  57.379  1.00  46.71      8
ATOM   11003  N    THR C 979      21.428  73.743  57.929  1.00  85.10      7
ATOM   11004  CA   THR C 979      21.145  73.486  59.340  1.00  87.17      6
ATOM   11005  CB   THR C 979      21.722  74.600  60.241  1.00 202.64      6
ATOM   11006  OG1  THR C 979      23.112  74.788  59.949  1.00 204.66      8
ATOM   11007  CG2  THR C 979      21.574  74.228  61.710  1.00 203.31      6
ATOM   11008  C    THR C 979      19.661  73.387  59.622  1.00  86.86      6
ATOM   11009  O    THR C 979      19.244  72.777  60.603  1.00  88.03      8
ATOM   11010  N    GLY C 980      18.862  73.991  58.757  1.00  45.86      7
ATOM   11011  CA   GLY C 980      17.434  73.959  58.960  1.00  45.10      6
ATOM   11012  C    GLY C 980      17.004  75.168  59.759  1.00  44.34      6
ATOM   11013  O    GLY C 980      15.905  75.688  59.575  1.00  45.72      8
ATOM   11014  N    GLU C 981      17.880  75.619  60.651  1.00  57.88      7
ATOM   11015  CA   GLU C 981      17.603  76.777  61.489  1.00  56.67      6
ATOM   11016  CB   GLU C 981      18.519  76.731  62.713  1.00  99.07      6
ATOM   11017  CG   GLU C 981      18.151  75.600  63.676  1.00 105.10      6
ATOM   11018  CD   GLU C 981      19.305  74.649  63.981  1.00 109.31      6
ATOM   11019  OE1  GLU C 981      20.321  75.095  64.560  1.00 112.69      8
ATOM   11020  OE2  GLU C 981      19.192  73.448  63.649  1.00 110.76      8
ATOM   11021  C    GLU C 981      17.778  78.079  60.697  1.00  54.05      6
ATOM   11022  O    GLU C 981      17.895  78.055  59.470  1.00  55.73      8
ATOM   11023  N    PRO C 982      17.749  79.236  61.377  1.00  32.50      7
```

```
ATOM  11024  CD   PRO C 982     17.006  79.485  62.627  1.00  44.67      6
ATOM  11025  CA   PRO C 982     17.918  80.492  60.636  1.00  29.63      6
ATOM  11026  CB   PRO C 982     16.764  81.331  61.147  1.00  43.45      6
ATOM  11027  CG   PRO C 982     16.787  80.998  62.594  1.00  43.65      6
ATOM  11028  C    PRO C 982     19.254  81.201  60.851  1.00  25.71      6
ATOM  11029  O    PRO C 982     20.107  80.765  61.624  1.00  25.17      8
ATOM  11030  N    PHE C 983     19.423  82.308  60.147  1.00  31.10      7
ATOM  11031  CA   PHE C 983     20.628  83.107  60.277  1.00  28.85      6
ATOM  11032  CB   PHE C 983     21.142  83.524  58.901  1.00  32.18      6
ATOM  11033  CG   PHE C 983     22.035  82.513  58.259  1.00  31.04      6
ATOM  11034  CD1  PHE C 983     22.059  82.370  56.878  1.00  29.66      6
ATOM  11035  CD2  PHE C 983     22.845  81.697  59.034  1.00  31.27      6
ATOM  11036  CE1  PHE C 983     22.868  81.431  56.281  1.00  29.81      6
ATOM  11037  CE2  PHE C 983     23.664  80.749  58.439  1.00  31.41      6
ATOM  11038  CZ   PHE C 983     23.673  80.616  57.058  1.00  31.06      6
ATOM  11039  C    PHE C 983     20.301  84.349  61.100  1.00  27.01      6
ATOM  11040  O    PHE C 983     19.869  85.368  60.555  1.00  25.65      8
ATOM  11041  N    GLU C 984     20.502  84.247  62.411  1.00  37.40      7
ATOM  11042  CA   GLU C 984     20.237  85.346  63.323  1.00  36.01      6
ATOM  11043  CB   GLU C 984     21.034  85.162  64.605  1.00  55.68      6
ATOM  11044  CG   GLU C 984     22.491  84.885  64.350  1.00  59.64      6
ATOM  11045  CD   GLU C 984     22.957  83.626  65.038  1.00  62.38      6
ATOM  11046  OE1  GLU C 984     22.263  82.599  64.897  1.00  62.80      8
ATOM  11047  OE2  GLU C 984     24.012  83.655  65.713  1.00  64.81      8
ATOM  11048  C    GLU C 984     20.664  86.617  62.638  1.00  33.82      6
ATOM  11049  O    GLU C 984     21.764  86.684  62.100  1.00  34.00      8
ATOM  11050  N    GLY C 985     19.791  87.617  62.643  1.00  30.99      7
ATOM  11051  CA   GLY C 985     20.117  88.876  61.997  1.00  28.15      6
ATOM  11052  C    GLY C 985     19.962  88.772  60.495  1.00  26.16      6
ATOM  11053  O    GLY C 985     20.641  87.974  59.849  1.00  26.05      8
ATOM  11054  N    PRO C 986     19.074  89.581  59.907  1.00  29.03      7
ATOM  11055  CD   PRO C 986     18.449  90.779  60.484  1.00  15.25      6
ATOM  11056  CA   PRO C 986     18.867  89.531  58.460  1.00  27.60      6
ATOM  11057  CB   PRO C 986     18.174  90.857  58.156  1.00  14.69      6
ATOM  11058  CG   PRO C 986     18.516  91.723  59.336  1.00  14.93      6
ATOM  11059  C    PRO C 986     20.165  89.354  57.700  1.00  26.72      6
ATOM  11060  O    PRO C 986     21.248  89.466  58.281  1.00  27.37      8
ATOM  11061  N    ILE C 987     20.038  89.077  56.400  1.00  18.42      7
ATOM  11062  CA   ILE C 987     21.171  88.845  55.501  1.00  16.80      6
ATOM  11063  CB   ILE C 987     21.441  87.323  55.385  1.00  13.87      6
ATOM  11064  CG2  ILE C 987     22.381  87.047  54.266  1.00  13.94      6
ATOM  11065  CG1  ILE C 987     22.057  86.786  56.676  1.00  13.87      6
ATOM  11066  CD1  ILE C 987     23.462  87.322  56.970  1.00  16.12      6
ATOM  11067  C    ILE C 987     20.831  89.385  54.124  1.00  16.80      6
ATOM  11068  O    ILE C 987     20.304  88.650  53.322  1.00  16.80      8
ATOM  11069  N    VAL C 988     21.139  90.645  53.832  1.00  47.22      7
ATOM  11070  CA   VAL C 988     20.786  91.234  52.525  1.00  49.47      6
ATOM  11071  CB   VAL C 988     21.558  92.571  52.279  1.00  16.80      6
ATOM  11072  CG1  VAL C 988     23.000  92.417  52.664  1.00  17.34      6
ATOM  11073  CG2  VAL C 988     21.424  92.994  50.839  1.00  15.58      6
ATOM  11074  C    VAL C 988     20.930  90.312  51.302  1.00  50.17      6
ATOM  11075  O    VAL C 988     21.991  89.747  51.053  1.00  52.27      8
ATOM  11076  N    VAL C 989     19.845  90.175  50.544  1.00  24.68      7
ATOM  11077  CA   VAL C 989     19.807  89.308  49.368  1.00  25.07      6
ATOM  11078  CB   VAL C 989     18.705  88.229  49.554  1.00  14.32      6
ATOM  11079  CG1  VAL C 989     18.403  87.536  48.255  1.00  17.13      6
```

198

ATOM	11080	CG2	VAL	C	989	19.147	87.216	50.570	1.00	15.03	6
ATOM	11081	C	VAL	C	989	19.526	90.130	48.102	1.00	26.60	6
ATOM	11082	O	VAL	C	989	19.168	91.304	48.200	1.00	28.55	8
ATOM	11083	N	GLY	C	990	19.697	89.526	46.924	1.00	30.67	7
ATOM	11084	CA	GLY	C	990	19.438	90.234	45.677	1.00	31.43	6
ATOM	11085	C	GLY	C	990	20.007	89.601	44.409	1.00	31.89	6
ATOM	11086	O	GLY	C	990	20.667	88.568	44.455	1.00	31.21	8
ATOM	11087	N	GLN	C	991	19.737	90.216	43.261	1.00	17.81	7
ATOM	11088	CA	GLN	C	991	20.248	89.709	41.993	1.00	18.72	6
ATOM	11089	CB	GLN	C	991	19.194	89.772	40.896	1.00	44.96	6
ATOM	11090	CG	GLN	C	991	17.821	89.294	41.246	1.00	48.05	6
ATOM	11091	CD	GLN	C	991	17.051	88.956	39.991	1.00	49.93	6
ATOM	11092	OE1	GLN	C	991	16.981	89.759	39.054	1.00	49.34	8
ATOM	11093	NE2	GLN	C	991	16.479	87.761	39.955	1.00	50.17	7
ATOM	11094	C	GLN	C	991	21.416	90.553	41.518	1.00	18.07	6
ATOM	11095	O	GLN	C	991	21.221	91.573	40.866	1.00	17.99	8
ATOM	11096	N	MET	C	992	22.638	90.156	41.824	1.00	39.09	7
ATOM	11097	CA	MET	C	992	23.745	90.963	41.339	1.00	38.59	6
ATOM	11098	CB	MET	C	992	25.077	90.544	41.976	1.00	20.30	6
ATOM	11099	CG	MET	C	992	26.120	91.636	41.928	1.00	17.71	6
ATOM	11100	SD	MET	C	992	27.194	91.687	43.389	1.00	20.68	16
ATOM	11101	CE	MET	C	992	26.016	91.680	44.760	1.00	15.97	6
ATOM	11102	C	MET	C	992	23.791	90.771	39.831	1.00	39.94	6
ATOM	11103	O	MET	C	992	22.813	91.031	39.134	1.00	40.95	8
ATOM	11104	N	PHE	C	993	24.921	90.283	39.341	1.00	44.24	7
ATOM	11105	CA	PHE	C	993	25.129	90.067	37.914	1.00	44.14	6
ATOM	11106	CB	PHE	C	993	24.714	91.328	37.144	1.00	27.79	6
ATOM	11107	CG	PHE	C	993	25.320	91.456	35.774	1.00	27.42	6
ATOM	11108	CD1	PHE	C	993	26.553	92.070	35.601	1.00	27.20	6
ATOM	11109	CD2	PHE	C	993	24.628	91.025	34.651	1.00	27.04	6
ATOM	11110	CE1	PHE	C	993	27.081	92.258	34.330	1.00	26.20	6
ATOM	11111	CE2	PHE	C	993	25.150	91.210	33.378	1.00	26.64	6
ATOM	11112	CZ	PHE	C	993	26.375	91.828	33.217	1.00	26.08	6
ATOM	11113	C	PHE	C	993	26.617	89.809	37.789	1.00	44.72	6
ATOM	11114	O	PHE	C	993	27.413	90.742	37.730	1.00	45.45	8
ATOM	11115	N	ILE	C	994	26.995	88.541	37.780	1.00	44.61	7
ATOM	11116	CA	ILE	C	994	28.399	88.204	37.697	1.00	43.80	6
ATOM	11117	CB	ILE	C	994	28.784	87.142	38.737	1.00	19.13	6
ATOM	11118	CG2	ILE	C	994	30.207	87.334	39.090	1.00	20.66	6
ATOM	11119	CG1	ILE	C	994	27.911	87.231	40.000	1.00	17.49	6
ATOM	11120	CD1	ILE	C	994	27.914	88.565	40.693	1.00	17.51	6
ATOM	11121	C	ILE	C	994	28.784	87.677	36.322	1.00	43.75	6
ATOM	11122	O	ILE	C	994	28.221	86.688	35.846	1.00	43.06	8
ATOM	11123	N	MET	C	995	29.746	88.337	35.686	1.00	37.58	7
ATOM	11124	CA	MET	C	995	30.210	87.924	34.370	1.00	35.68	6
ATOM	11125	CB	MET	C	995	30.945	89.076	33.705	1.00	20.97	6
ATOM	11126	CG	MET	C	995	30.322	90.428	33.981	1.00	20.58	6
ATOM	11127	SD	MET	C	995	31.466	91.803	33.727	1.00	21.18	16
ATOM	11128	CE	MET	C	995	30.986	92.311	32.174	1.00	22.42	6
ATOM	11129	C	MET	C	995	31.171	86.784	34.648	1.00	36.47	6
ATOM	11130	O	MET	C	995	31.370	86.430	35.801	1.00	36.94	8
ATOM	11131	N	LYS	C	996	31.753	86.198	33.609	1.00	46.96	7
ATOM	11132	CA	LYS	C	996	32.717	85.108	33.790	1.00	47.84	6
ATOM	11133	CB	LYS	C	996	32.073	83.757	33.477	1.00	17.54	6
ATOM	11134	CG	LYS	C	996	33.056	82.621	33.376	1.00	13.87	6
ATOM	11135	CD	LYS	C	996	32.376	81.391	32.847	1.00	13.87	6

199

```
ATOM  11136  CE   LYS C 996    33.385  80.444  32.215  1.00 13.87      6
ATOM  11137  NZ   LYS C 996    32.800  79.143  31.773  1.00 13.87      7
ATOM  11138  C    LYS C 996    33.904  85.345  32.860  1.00 51.11      6
ATOM  11139  O    LYS C 996    33.804  85.125  31.658  1.00 53.25      8
ATOM  11140  N    LEU C 997    35.025  85.784  33.426  1.00 15.42      7
ATOM  11141  CA   LEU C 997    36.225  86.095  32.664  1.00 15.70      6
ATOM  11142  CB   LEU C 997    37.174  86.840  33.569  1.00 13.87      6
ATOM  11143  CG   LEU C 997    36.487  88.046  34.168  1.00 13.87      6
ATOM  11144  CD1  LEU C 997    37.351  88.663  35.226  1.00 13.87      6
ATOM  11145  CD2  LEU C 997    36.187  89.013  33.090  1.00 13.87      6
ATOM  11146  C    LEU C 997    36.968  84.958  31.953  1.00 17.74      6
ATOM  11147  O    LEU C 997    36.949  83.808  32.368  1.00 18.03      8
ATOM  11148  N    TYR C 998    37.645  85.322  30.873  1.00 20.72      7
ATOM  11149  CA   TYR C 998    38.408  84.407  30.035  1.00 24.37      6
ATOM  11150  CB   TYR C 998    39.214  85.242  29.023  1.00 92.26      6
ATOM  11151  CG   TYR C 998    40.008  84.460  27.990  1.00 96.60      6
ATOM  11152  CD1  TYR C 998    39.480  83.321  27.372  1.00 98.30      6
ATOM  11153  CE1  TYR C 998    40.209  82.619  26.397  1.00 98.92      6
ATOM  11154  CD2  TYR C 998    41.283  84.880  27.607  1.00 98.51      6
ATOM  11155  CE2  TYR C 998    42.016  84.190  26.633  1.00 98.97      6
ATOM  11156  CZ   TYR C 998    41.476  83.064  26.035  1.00 98.33      6
ATOM  11157  OH   TYR C 998    42.207  82.396  25.077  1.00 98.89      8
ATOM  11158  C    TYR C 998    39.314  83.378  30.727  1.00 25.75      6
ATOM  11159  O    TYR C 998    39.751  82.435  30.071  1.00 27.14      8
ATOM  11160  N    HIS C 999    39.584  83.507  32.028  1.00 41.06      7
ATOM  11161  CA   HIS C 999    40.466  82.532  32.694  1.00 43.13      6
ATOM  11162  CB   HIS C 999    40.904  83.059  34.055  1.00 74.02      6
ATOM  11163  CG   HIS C 999    42.100  83.956  33.975  1.00 78.41      6
ATOM  11164  CD2  HIS C 999    42.389  84.978  33.136  1.00 79.36      6
ATOM  11165  ND1  HIS C 999    43.190  83.824  34.812  1.00 80.62      7
ATOM  11166  CE1  HIS C 999    44.100  84.727  34.488  1.00 80.65      6
ATOM  11167  NE2  HIS C 999    43.640  85.440  33.475  1.00 80.99      7
ATOM  11168  C    HIS C 999    40.014  81.061  32.827  1.00 42.37      6
ATOM  11169  O    HIS C 999    40.634  80.165  32.249  1.00 42.56      8
ATOM  11170  N    MET C1000    38.956  80.808  33.590  1.00 61.43      7
ATOM  11171  CA   MET C1000    38.420  79.451  33.775  1.00 60.85      6
ATOM  11172  CB   MET C1000    37.354  79.165  32.710  1.00 57.57      6
ATOM  11173  CG   MET C1000    37.804  79.398  31.273  1.00 61.63      6
ATOM  11174  SD   MET C1000    36.405  79.619  30.147  1.00 64.55     16
ATOM  11175  CE   MET C1000    35.399  78.247  30.678  1.00 65.80      6
ATOM  11176  C    MET C1000    39.415  78.287  33.832  1.00 59.77      6
ATOM  11177  O    MET C1000    39.571  77.541  32.875  1.00 60.85      8
ATOM  11178  N    VAL C1001    40.055  78.153  34.990  1.00 16.94      7
ATOM  11179  CA   VAL C1001    41.032  77.119  35.336  1.00 14.11      6
ATOM  11180  CB   VAL C1001    40.466  76.118  36.340  1.00 38.93      6
ATOM  11181  CG1  VAL C1001    41.562  75.158  36.736  1.00 39.27      6
ATOM  11182  CG2  VAL C1001    39.887  76.836  37.553  1.00 38.97      6
ATOM  11183  C    VAL C1001    41.623  76.283  34.242  1.00 14.44      6
ATOM  11184  O    VAL C1001    42.806  76.408  33.954  1.00 14.38      8
ATOM  11185  N    GLU C1002    40.794  75.397  33.683  1.00 60.65      7
ATOM  11186  CA   GLU C1002    41.168  74.466  32.614  1.00 62.16      6
ATOM  11187  CB   GLU C1002    40.051  74.334  31.573  1.00 72.07      6
ATOM  11188  CG   GLU C1002    38.731  73.790  32.072  1.00 75.81      6
ATOM  11189  CD   GLU C1002    37.791  73.451  30.931  1.00 79.01      6
ATOM  11190  OE1  GLU C1002    38.059  72.470  30.208  1.00 81.12      8
ATOM  11191  OE2  GLU C1002    36.792  74.176  30.743  1.00 80.37      8
```

200

```
ATOM   11192  C    GLU C1002     42.427  74.840  31.870  1.00  60.50      6
ATOM   11193  O    GLU C1002     43.363  74.050  31.789  1.00  60.82      8
ATOM   11194  N    ASP C1003     42.432  76.046  31.314  1.00  26.50      7
ATOM   11195  CA   ASP C1003     43.557  76.539  30.544  1.00  24.70      6
ATOM   11196  CB   ASP C1003     43.171  77.863  29.923  1.00  50.89      6
ATOM   11197  CG   ASP C1003     41.850  77.778  29.203  1.00  52.83      6
ATOM   11198  OD1  ASP C1003     41.358  78.817  28.722  1.00  54.56      8
ATOM   11199  OD2  ASP C1003     41.298  76.661  29.120  1.00  53.96      8
ATOM   11200  C    ASP C1003     44.828  76.657  31.369  1.00  23.02      6
ATOM   11201  O    ASP C1003     45.929  76.641  30.828  1.00  22.80      8
ATOM   11202  N    LYS C1004     44.665  76.773  32.680  1.00  19.96      7
ATOM   11203  CA   LYS C1004     45.784  76.827  33.599  1.00  19.04      6
ATOM   11204  CB   LYS C1004     45.507  77.803  34.730  1.00  20.56      6
ATOM   11205  CG   LYS C1004     44.694  79.018  34.353  1.00  23.05      6
ATOM   11206  CD   LYS C1004     45.453  79.942  33.422  1.00  24.51      6
ATOM   11207  CE   LYS C1004     44.811  81.320  33.408  1.00  25.76      6
ATOM   11208  NZ   LYS C1004     45.465  82.237  32.435  1.00  28.59      7
ATOM   11209  C    LYS C1004     45.798  75.409  34.176  1.00  19.56      6
ATOM   11210  O    LYS C1004     44.875  74.628  33.931  1.00  20.55      8
ATOM   11211  N    MET C1005     46.826  75.077  34.953  1.00  42.15      7
ATOM   11212  CA   MET C1005     46.944  73.753  35.570  1.00  41.06      6
ATOM   11213  CB   MET C1005     45.607  73.299  36.187  1.00  20.69      6
ATOM   11214  CG   MET C1005     45.116  71.887  35.804  1.00  20.20      6
ATOM   11215  SD   MET C1005     45.128  70.556  37.078  1.00  20.38     16
ATOM   11216  CE   MET C1005     46.148  69.418  36.337  1.00  19.70      6
ATOM   11217  C    MET C1005     47.436  72.676  34.632  1.00  42.58      6
ATOM   11218  O    MET C1005     46.715  72.223  33.749  1.00  44.78      8
ATOM   11219  N    HIS C1006     48.689  72.293  34.816  1.00  13.87      7
ATOM   11220  CA   HIS C1006     49.280  71.215  34.065  1.00  13.87      6
ATOM   11221  CB   HIS C1006     50.369  71.735  33.126  1.00  93.10      6
ATOM   11222  CG   HIS C1006     50.334  71.102  31.766  1.00  99.57      6
ATOM   11223  CD2  HIS C1006     49.583  70.085  31.277  1.00 100.85      6
ATOM   11224  ND1  HIS C1006     51.140  71.516  30.725  1.00 102.52      7
ATOM   11225  CE1  HIS C1006     50.885  70.782  29.655  1.00 102.71      6
ATOM   11226  NE2  HIS C1006     49.945  69.907  29.963  1.00 102.00      7
ATOM   11227  C    HIS C1006     49.844  70.404  35.224  1.00  13.87      6
ATOM   11228  O    HIS C1006     49.484  70.650  36.358  1.00  13.87      8
ATOM   11229  N    ALA C1007     50.698  69.433  34.976  1.00  33.72      7
ATOM   11230  CA   ALA C1007     51.249  68.662  36.079  1.00  34.73      6
ATOM   11231  CB   ALA C1007     50.153  67.947  36.820  1.00  13.87      6
ATOM   11232  C    ALA C1007     52.241  67.668  35.524  1.00  36.05      6
ATOM   11233  O    ALA C1007     51.867  66.701  34.866  1.00  36.02      8
ATOM   11234  N    ARG C1008     53.517  67.916  35.780  1.00  41.26      7
ATOM   11235  CA   ARG C1008     54.565  67.043  35.281  1.00  43.17      6
ATOM   11236  CB   ARG C1008     55.689  67.878  34.668  1.00  33.91      6
ATOM   11237  CG   ARG C1008     56.866  67.078  34.181  1.00  32.25      6
ATOM   11238  CD   ARG C1008     57.486  67.733  32.969  1.00  30.96      6
ATOM   11239  NE   ARG C1008     58.791  67.162  32.682  1.00  30.64      7
ATOM   11240  CZ   ARG C1008     59.493  67.393  31.583  1.00  29.97      6
ATOM   11241  NH1  ARG C1008     59.026  68.193  30.635  1.00  29.22      7
ATOM   11242  NH2  ARG C1008     60.676  66.818  31.440  1.00  30.67      7
ATOM   11243  C    ARG C1008     55.128  66.132  36.347  1.00  45.10      6
ATOM   11244  O    ARG C1008     55.051  66.416  37.541  1.00  45.89      8
ATOM   11245  N    SER C1009     55.687  65.022  35.895  1.00  49.92      7
ATOM   11246  CA   SER C1009     56.292  64.056  36.784  1.00  51.93      6
ATOM   11247  CB   SER C1009     55.375  62.861  36.983  1.00  57.98      6
```

201

```
ATOM   11248  OG   SER C1009      55.872  62.041  38.021  1.00 59.37      8
ATOM   11249  C    SER C1009      57.547  63.617  36.080  1.00 52.84      6
ATOM   11250  O    SER C1009      58.581  63.409  36.706  1.00 53.28      8
ATOM   11251  N    THR C1010      57.439  63.477  34.763  1.00 27.93      7
ATOM   11252  CA   THR C1010      58.573  63.087  33.948  1.00 29.04      6
ATOM   11253  CB   THR C1010      58.727  61.561  33.885  1.00 37.56      6
ATOM   11254  OG1  THR C1010      58.409  60.985  35.157  1.00 36.45      8
ATOM   11255  CG2  THR C1010      60.165  61.205  33.559  1.00 37.90      6
ATOM   11256  C    THR C1010      58.391  63.637  32.540  1.00 30.66      6
ATOM   11257  O    THR C1010      58.680  64.800  32.282  1.00 30.57      8
ATOM   11258  N    GLY C1011      57.928  62.799  31.623  1.00 42.65      7
ATOM   11259  CA   GLY C1011      57.694  63.247  30.255  1.00 45.25      6
ATOM   11260  C    GLY C1011      58.796  63.964  29.489  1.00 46.79      6
ATOM   11261  O    GLY C1011      59.914  64.085  29.967  1.00 47.00      8
ATOM   11262  N    PRO C1012      58.479  64.479  28.291  1.00 48.83      7
ATOM   11263  CD   PRO C1012      57.064  64.689  27.931  1.00114.49      6
ATOM   11264  CA   PRO C1012      59.342  65.201  27.352  1.00 49.93      6
ATOM   11265  CB   PRO C1012      58.376  66.173  26.700  1.00114.23      6
ATOM   11266  CG   PRO C1012      57.158  65.353  26.572  1.00114.37      6
ATOM   11267  C    PRO C1012      60.568  65.914  27.901  1.00 51.27      6
ATOM   11268  O    PRO C1012      60.460  66.788  28.759  1.00 51.89      8
ATOM   11269  N    TYR C1013      61.728  65.554  27.363  1.00 86.75      7
ATOM   11270  CA   TYR C1013      63.019  66.141  27.745  1.00 87.75      6
ATOM   11271  CB   TYR C1013      63.976  65.016  28.111  1.00 53.54      6
ATOM   11272  CG   TYR C1013      64.625  65.034  29.482  1.00 53.45      6
ATOM   11273  CD1  TYR C1013      63.866  64.966  30.650  1.00 52.95      6
ATOM   11274  CE1  TYR C1013      64.482  64.779  31.886  1.00 52.43      6
ATOM   11275  CD2  TYR C1013      66.020  64.937  29.594  1.00 53.96      6
ATOM   11276  CE2  TYR C1013      66.640  64.753  30.808  1.00 53.24      6
ATOM   11277  CZ   TYR C1013      65.875  64.667  31.946  1.00 52.45      6
ATOM   11278  OH   TYR C1013      66.521  64.425  33.131  1.00 52.61      8
ATOM   11279  C    TYR C1013      63.537  66.857  26.478  1.00 88.24      6
ATOM   11280  O    TYR C1013      63.463  66.291  25.378  1.00 89.30      8
ATOM   11281  N    SER C1014      64.069  68.072  26.610  1.00 47.08      7
ATOM   11282  CA   SER C1014      64.545  68.794  25.427  1.00 47.39      6
ATOM   11283  CB   SER C1014      64.378  70.292  25.598  1.00 60.42      6
ATOM   11284  OG   SER C1014      65.170  70.966  24.627  1.00 63.02      8
ATOM   11285  C    SER C1014      65.983  68.546  25.002  1.00 47.75      6
ATOM   11286  O    SER C1014      66.906  68.585  25.820  1.00 47.83      8
ATOM   11287  N    LEU C1015      66.170  68.342  23.699  1.00 70.61      7
ATOM   11288  CA   LEU C1015      67.491  68.071  23.150  1.00 69.98      6
ATOM   11289  CB   LEU C1015      67.386  67.105  21.969  1.00114.54      6
ATOM   11290  CG   LEU C1015      66.451  67.451  20.811  1.00115.93      6
ATOM   11291  CD1  LEU C1015      66.940  68.690  20.084  1.00116.00      6
ATOM   11292  CD2  LEU C1015      66.392  66.264  19.860  1.00116.40      6
ATOM   11293  C    LEU C1015      68.296  69.287  22.738  1.00 68.72      6
ATOM   11294  O    LEU C1015      69.349  69.139  22.133  1.00 68.77      8
ATOM   11295  N    ILE C1016      67.803  70.484  23.039  1.00 37.53      7
ATOM   11296  CA   ILE C1016      68.548  71.699  22.718  1.00 36.23      6
ATOM   11297  CB   ILE C1016      67.667  72.807  22.170  1.00 50.00      6
ATOM   11298  CG2  ILE C1016      68.508  74.065  21.950  1.00 48.92      6
ATOM   11299  CG1  ILE C1016      67.011  72.346  20.875  1.00 49.95      6
ATOM   11300  CD1  ILE C1016      67.986  72.089  19.768  1.00 50.95      6
ATOM   11301  C    ILE C1016      69.152  72.224  24.001  1.00 35.96      6
ATOM   11302  O    ILE C1016      70.359  72.441  24.083  1.00 35.90      8
ATOM   11303  N    THR C1017      68.292  72.443  24.994  1.00 39.57      7
```

```
ATOM  11304  CA   THR C1017      68.722  72.929  26.300  1.00  39.57      6
ATOM  11305  CB   THR C1017      67.583  73.655  27.052  1.00  88.65      6
ATOM  11306  OG1  THR C1017      66.860  74.501  26.146  1.00  88.92      8
ATOM  11307  CG2  THR C1017      68.162  74.509  28.171  1.00  89.88      6
ATOM  11308  C    THR C1017      69.097  71.676  27.068  1.00  39.20      6
ATOM  11309  O    THR C1017      70.265  71.333  27.164  1.00  38.71      8
ATOM  11310  N    GLN C1018      68.085  71.002  27.600  1.00  17.95      7
ATOM  11311  CA   GLN C1018      68.233  69.745  28.331  1.00  18.99      6
ATOM  11312  CB   GLN C1018      69.688  69.452  28.670  1.00  56.47      6
ATOM  11313  CG   GLN C1018      70.209  68.246  27.920  1.00  58.39      6
ATOM  11314  CD   GLN C1018      69.214  67.107  27.933  1.00  58.71      6
ATOM  11315  OE1  GLN C1018      68.140  67.206  27.351  1.00  58.37      8
ATOM  11316  NE2  GLN C1018      69.565  66.020  28.601  1.00  59.16      7
ATOM  11317  C    GLN C1018      67.398  69.628  29.591  1.00  19.88      6
ATOM  11318  O    GLN C1018      67.473  68.624  30.312  1.00  18.83      8
ATOM  11319  N    GLN C1019      66.603  70.658  29.847  1.00  47.41      7
ATOM  11320  CA   GLN C1019      65.716  70.670  30.990  1.00  50.89      6
ATOM  11321  CB   GLN C1019      65.710  72.060  31.623  1.00  49.09      6
ATOM  11322  CG   GLN C1019      66.269  73.139  30.730  1.00  48.74      6
ATOM  11323  CD   GLN C1019      66.348  74.477  31.428  1.00  48.54      6
ATOM  11324  OE1  GLN C1019      66.829  74.574  32.554  1.00  49.01      8
ATOM  11325  NE2  GLN C1019      65.889  75.522  30.757  1.00  48.79      7
ATOM  11326  C    GLN C1019      64.308  70.280  30.513  1.00  53.88      6
ATOM  11327  O    GLN C1019      64.002  70.346  29.323  1.00  54.77      8
ATOM  11328  N    PRO C1020      63.443  69.843  31.438  1.00  44.35      7
ATOM  11329  CD   PRO C1020      63.750  69.666  32.869  1.00  98.24      6
ATOM  11330  CA   PRO C1020      62.066  69.434  31.157  1.00  47.24      6
ATOM  11331  CB   PRO C1020      61.458  69.356  32.551  1.00  99.76      6
ATOM  11332  CG   PRO C1020      62.584  68.832  33.353  1.00  99.02      6
ATOM  11333  C    PRO C1020      61.314  70.419  30.265  1.00  50.54      6
ATOM  11334  O    PRO C1020      61.434  71.626  30.451  1.00  49.81      8
ATOM  11335  N    LEU C1021      60.545  69.896  29.310  1.00  94.66      7
ATOM  11336  CA   LEU C1021      59.742  70.709  28.392  1.00  99.47      6
ATOM  11337  CB   LEU C1021      60.335  72.115  28.205  1.00 184.73      6
ATOM  11338  CG   LEU C1021      59.764  73.255  29.060  1.00 186.62      6
ATOM  11339  CD1  LEU C1021      60.683  74.459  28.957  1.00 186.97      6
ATOM  11340  CD2  LEU C1021      58.350  73.609  28.609  1.00 188.57      6
ATOM  11341  C    LEU C1021      59.570  70.069  27.025  1.00 102.04      6
ATOM  11342  O    LEU C1021      59.666  68.854  26.884  1.00 102.75      8
ATOM  11343  N    GLY C1022      59.305  70.916  26.033  1.00  87.07      7
ATOM  11344  CA   GLY C1022      59.107  70.488  24.657  1.00  90.28      6
ATOM  11345  C    GLY C1022      59.074  68.998  24.379  1.00  92.33      6
ATOM  11346  O    GLY C1022      60.107  68.329  24.406  1.00  92.40      8
ATOM  11347  N    GLY C1023      57.882  68.480  24.094  1.00 208.87      7
ATOM  11348  CA   GLY C1023      57.740  67.063  23.806  1.00 208.87      6
ATOM  11349  C    GLY C1023      56.633  66.740  22.822  1.00 208.87      6
ATOM  11350  O    GLY C1023      56.423  67.473  21.853  1.00 208.87      8
ATOM  11351  N    LYS C1024      55.919  65.643  23.069  1.00 154.54      7
ATOM  11352  CA   LYS C1024      54.839  65.221  22.186  1.00 155.10      6
ATOM  11353  CB   LYS C1024      55.418  64.465  20.983  1.00 208.87      6
ATOM  11354  CG   LYS C1024      56.416  65.266  20.150  1.00 208.87      6
ATOM  11355  CD   LYS C1024      57.177  64.393  19.159  1.00 208.87      6
ATOM  11356  CE   LYS C1024      58.222  65.204  18.400  1.00 208.87      6
ATOM  11357  NZ   LYS C1024      59.015  64.369  17.456  1.00 208.87      7
ATOM  11358  C    LYS C1024      53.819  64.332  22.895  1.00 154.31      6
ATOM  11359  O    LYS C1024      52.613  64.492  22.705  1.00 154.61      8
```

203

```
ATOM  11360  N    ALA C1025      54.310  63.400  23.710  1.00 98.15     7
ATOM  11361  CA   ALA C1025      53.453  62.453  24.432  1.00 96.34     6
ATOM  11362  CB   ALA C1025      54.306  61.318  24.994  1.00167.23     6
ATOM  11363  C    ALA C1025      52.634  63.091  25.550  1.00 94.94     6
ATOM  11364  O    ALA C1025      51.509  63.544  25.335  1.00 93.58     8
ATOM  11365  N    GLN C1026      53.190  63.079  26.755  1.00132.87     7
ATOM  11366  CA   GLN C1026      52.532  63.691  27.897  1.00132.40     6
ATOM  11367  CB   GLN C1026      53.036  63.076  29.204  1.00208.77     6
ATOM  11368  CG   GLN C1026      52.752  61.586  29.357  1.00208.87     6
ATOM  11369  CD   GLN C1026      53.571  60.719  28.414  1.00208.87     6
ATOM  11370  OE1  GLN C1026      54.801  60.698  28.479  1.00208.87     8
ATOM  11371  NE2  GLN C1026      52.889  59.995  27.534  1.00208.87     7
ATOM  11372  C    GLN C1026      52.975  65.138  27.800  1.00131.14     6
ATOM  11373  O    GLN C1026      53.337  65.595  26.716  1.00131.60     8
ATOM  11374  N    PHE C1027      52.966  65.860  28.913  1.00 82.92     7
ATOM  11375  CA   PHE C1027      53.403  67.250  28.877  1.00 80.71     6
ATOM  11376  CB   PHE C1027      52.459  68.074  27.998  1.00208.87     6
ATOM  11377  CG   PHE C1027      53.164  68.885  26.947  1.00208.87     6
ATOM  11378  CD1  PHE C1027      54.015  68.271  26.032  1.00208.87     6
ATOM  11379  CD2  PHE C1027      52.973  70.261  26.864  1.00208.87     6
ATOM  11380  CE1  PHE C1027      54.665  69.013  25.052  1.00208.87     6
ATOM  11381  CE2  PHE C1027      53.620  71.014  25.884  1.00208.87     6
ATOM  11382  CZ   PHE C1027      54.467  70.387  24.976  1.00208.87     6
ATOM  11383  C    PHE C1027      53.508  67.887  30.255  1.00 77.67     6
ATOM  11384  O    PHE C1027      52.813  67.496  31.195  1.00 77.36     8
ATOM  11385  N    GLY C1028      54.389  68.873  30.369  1.00 49.95     7
ATOM  11386  CA   GLY C1028      54.552  69.539  31.642  1.00 46.68     6
ATOM  11387  C    GLY C1028      55.682  70.545  31.700  1.00 43.63     6
ATOM  11388  O    GLY C1028      55.707  71.511  30.943  1.00 44.95     8
ATOM  11389  N    GLY C1029      56.620  70.313  32.608  1.00 66.31     7
ATOM  11390  CA   GLY C1029      57.730  71.223  32.762  1.00 63.47     6
ATOM  11391  C    GLY C1029      57.277  72.286  33.730  1.00 61.22     6
ATOM  11392  O    GLY C1029      56.098  72.607  33.764  1.00 62.75     8
ATOM  11393  N    GLN C1030      58.193  72.824  34.525  1.00 81.20     7
ATOM  11394  CA   GLN C1030      57.850  73.854  35.496  1.00 78.10     6
ATOM  11395  CB   GLN C1030      57.485  73.210  36.816  1.00 31.57     6
ATOM  11396  CG   GLN C1030      56.815  74.167  37.728  1.00 28.64     6
ATOM  11397  CD   GLN C1030      55.739  74.943  37.028  1.00 25.08     6
ATOM  11398  OE1  GLN C1030      54.896  74.372  36.352  1.00 21.41     8
ATOM  11399  NE2  GLN C1030      55.756  76.257  37.189  1.00 26.95     7
ATOM  11400  C    GLN C1030      59.050  74.755  35.689  1.00 77.82     6
ATOM  11401  O    GLN C1030      60.161  74.351  35.381  1.00 79.19     8
ATOM  11402  N    ARG C1031      58.856  75.963  36.205  1.00 45.25     7
ATOM  11403  CA   ARG C1031      60.001  76.849  36.373  1.00 44.23     6
ATOM  11404  CB   ARG C1031      59.735  78.199  35.702  1.00110.67     6
ATOM  11405  CG   ARG C1031      59.607  79.394  36.643  1.00113.90     6
ATOM  11406  CD   ARG C1031      58.163  79.634  37.099  1.00115.04     6
ATOM  11407  NE   ARG C1031      57.921  81.056  37.355  1.00115.65     7
ATOM  11408  CZ   ARG C1031      56.733  81.584  37.635  1.00116.14     6
ATOM  11409  NH1  ARG C1031      55.653  80.814  37.705  1.00116.14     7
ATOM  11410  NH2  ARG C1031      56.628  82.890  37.833  1.00116.64     7
ATOM  11411  C    ARG C1031      60.443  77.055  37.809  1.00 41.69     6
ATOM  11412  O    ARG C1031      59.641  76.984  38.736  1.00 42.41     8
ATOM  11413  N    PHE C1032      61.734  77.327  37.981  1.00 40.03     7
ATOM  11414  CA   PHE C1032      62.296  77.530  39.308  1.00 37.15     6
ATOM  11415  CB   PHE C1032      63.197  76.363  39.645  1.00 20.08     6
```

204

```
ATOM  11416  CG   PHE C1032      63.291  76.088  41.105  1.00 15.12      6
ATOM  11417  CD1  PHE C1032      62.133  75.992  41.875  1.00 13.87      6
ATOM  11418  CD2  PHE C1032      64.528  75.902  41.709  1.00 13.87      6
ATOM  11419  CE1  PHE C1032      62.200  75.714  43.217  1.00 13.87      6
ATOM  11420  CE2  PHE C1032      64.608  75.626  43.041  1.00 13.87      6
ATOM  11421  CZ   PHE C1032      63.435  75.530  43.806  1.00 13.87      6
ATOM  11422  C    PHE C1032      63.076  78.835  39.467  1.00 37.93      6
ATOM  11423  O    PHE C1032      64.089  78.882  40.163  1.00 38.84      8
ATOM  11424  N    GLY C1033      62.577  79.895  38.830  1.00 61.10      7
ATOM  11425  CA   GLY C1033      63.213  81.203  38.884  1.00 59.25      6
ATOM  11426  C    GLY C1033      63.779  81.651  40.218  1.00 57.87      6
ATOM  11427  O    GLY C1033      63.054  81.901  41.170  1.00 58.37      8
ATOM  11428  N    GLU C1034      65.097  81.752  40.260  1.00 35.29      7
ATOM  11429  CA   GLU C1034      65.857  82.182  41.424  1.00 33.00      6
ATOM  11430  CB   GLU C1034      66.677  83.414  41.060  1.00 27.87      6
ATOM  11431  CG   GLU C1034      65.836  84.585  40.637  1.00 26.20      6
ATOM  11432  CD   GLU C1034      66.580  85.890  40.726  1.00 24.84      6
ATOM  11433  OE1  GLU C1034      67.141  86.180  41.807  1.00 25.48      8
ATOM  11434  OE2  GLU C1034      66.593  86.629  39.720  1.00 22.96      8
ATOM  11435  C    GLU C1034      65.140  82.462  42.741  1.00 32.41      6
ATOM  11436  O    GLU C1034      65.570  81.964  43.774  1.00 33.50      8
ATOM  11437  N    MET C1035      64.091  83.285  42.724  1.00 33.04      7
ATOM  11438  CA   MET C1035      63.328  83.639  43.942  1.00 32.68      6
ATOM  11439  CB   MET C1035      61.990  84.263  43.553  1.00 45.39      6
ATOM  11440  CG   MET C1035      62.119  85.470  42.667  1.00 47.77      6
ATOM  11441  SD   MET C1035      62.423  86.954  43.583  1.00 49.69     16
ATOM  11442  CE   MET C1035      60.892  87.829  43.198  1.00 49.06      6
ATOM  11443  C    MET C1035      63.048  82.441  44.853  1.00 31.66      6
ATOM  11444  O    MET C1035      63.073  82.546  46.086  1.00 30.23      8
ATOM  11445  N    GLU C1036      62.747  81.317  44.214  1.00 43.75      7
ATOM  11446  CA   GLU C1036      62.471  80.068  44.891  1.00 42.00      6
ATOM  11447  CB   GLU C1036      61.799  79.098  43.919  1.00 70.48      6
ATOM  11448  CG   GLU C1036      60.411  79.552  43.437  1.00 73.46      6
ATOM  11449  CD   GLU C1036      60.437  80.813  42.572  1.00 74.77      6
ATOM  11450  OE1  GLU C1036      60.961  80.756  41.442  1.00 74.81      8
ATOM  11451  OE2  GLU C1036      59.927  81.860  43.021  1.00 76.12      8
ATOM  11452  C    GLU C1036      63.801  79.505  45.381  1.00 40.42      6
ATOM  11453  O    GLU C1036      63.846  78.777  46.369  1.00 40.09      8
ATOM  11454  N    VAL C1037      64.886  79.852  44.687  1.00 51.83      7
ATOM  11455  CA   VAL C1037      66.232  79.413  45.070  1.00 50.11      6
ATOM  11456  CB   VAL C1037      67.305  79.845  44.058  1.00 31.64      6
ATOM  11457  CG1  VAL C1037      68.654  79.316  44.500  1.00 30.33      6
ATOM  11458  CG2  VAL C1037      66.957  79.341  42.684  1.00 33.01      6
ATOM  11459  C    VAL C1037      66.594  80.054  46.405  1.00 50.34      6
ATOM  11460  O    VAL C1037      67.065  79.373  47.318  1.00 51.42      8
ATOM  11461  N    TRP C1038      66.406  81.371  46.504  1.00 31.86      7
ATOM  11462  CA   TRP C1038      66.680  82.053  47.752  1.00 30.02      6
ATOM  11463  CB   TRP C1038      66.274  83.524  47.691  1.00 29.88      6
ATOM  11464  CG   TRP C1038      67.065  84.403  46.768  1.00 30.43      6
ATOM  11465  CD2  TRP C1038      66.622  85.636  46.170  1.00 30.63      6
ATOM  11466  CE2  TRP C1038      67.688  86.135  45.405  1.00 30.04      6
ATOM  11467  CE3  TRP C1038      65.422  86.360  46.207  1.00 30.95      6
ATOM  11468  CD1  TRP C1038      68.342  84.219  46.357  1.00 30.76      6
ATOM  11469  NE1  TRP C1038      68.730  85.256  45.536  1.00 30.48      7
ATOM  11470  CZ2  TRP C1038      67.596  87.317  44.681  1.00 29.69      6
ATOM  11471  CZ3  TRP C1038      65.333  87.531  45.489  1.00 29.39      6
```

```
ATOM   11472   CH2   TRP   C1038        66.411   87.998   44.736   1.00   28.83        6
ATOM   11473   C     TRP   C1038        65.806   81.353   48.796   1.00   28.68        6
ATOM   11474   O     TRP   C1038        66.289   80.948   49.844   1.00   28.13        8
ATOM   11475   N     ALA   C1039        64.515   81.215   48.499   1.00   18.31        7
ATOM   11476   CA    ALA   C1039        63.565   80.558   49.399   1.00   17.79        6
ATOM   11477   CB    ALA   C1039        62.329   80.121   48.633   1.00   62.41        6
ATOM   11478   C     ALA   C1039        64.200   79.360   50.054   1.00   17.24        6
ATOM   11479   O     ALA   C1039        64.203   79.259   51.270   1.00   16.36        8
ATOM   11480   N     LEU   C1040        64.740   78.452   49.244   1.00   14.18        7
ATOM   11481   CA    LEU   C1040        65.391   77.254   49.776   1.00   13.87        6
ATOM   11482   CB    LEU   C1040        65.697   76.246   48.657   1.00   40.62        6
ATOM   11483   CG    LEU   C1040        64.594   75.316   48.107   1.00   42.47        6
ATOM   11484   CD1   LEU   C1040        63.908   74.560   49.245   1.00   42.97        6
ATOM   11485   CD2   LEU   C1040        63.579   76.119   47.341   1.00   42.23        6
ATOM   11486   C     LEU   C1040        66.669   77.590   50.543   1.00   13.87        6
ATOM   11487   O     LEU   C1040        66.893   77.069   51.630   1.00   13.87        8
ATOM   11488   N     GLU   C1041        67.506   78.457   49.976   1.00   29.26        7
ATOM   11489   CA    GLU   C1041        68.733   78.857   50.655   1.00   28.23        6
ATOM   11490   CB    GLU   C1041        69.457   80.000   49.901   1.00   19.32        6
ATOM   11491   CG    GLU   C1041        69.804   79.664   48.436   1.00   19.62        6
ATOM   11492   CD    GLU   C1041        71.042   80.396   47.870   1.00   20.88        6
ATOM   11493   OE1   GLU   C1041        71.017   81.622   47.594   1.00   18.20        8
ATOM   11494   OE2   GLU   C1041        72.064   79.713   47.684   1.00   22.50        8
ATOM   11495   C     GLU   C1041        68.280   79.319   52.040   1.00   27.64        6
ATOM   11496   O     GLU   C1041        68.595   78.686   53.043   1.00   27.24        8
ATOM   11497   N     ALA   C1042        67.494   80.391   52.078   1.00   15.12        7
ATOM   11498   CA    ALA   C1042        66.985   80.964   53.320   1.00   15.86        6
ATOM   11499   CB    ALA   C1042        65.865   81.938   53.021   1.00   42.81        6
ATOM   11500   C     ALA   C1042        66.496   79.894   54.274   1.00   17.96        6
ATOM   11501   O     ALA   C1042        66.644   80.020   55.495   1.00   18.10        8
ATOM   11502   N     TYR   C1043        65.897   78.846   53.713   1.00   45.50        7
ATOM   11503   CA    TYR   C1043        65.404   77.735   54.516   1.00   47.36        6
ATOM   11504   CB    TYR   C1043        64.442   76.872   53.702   1.00   32.82        6
ATOM   11505   CG    TYR   C1043        62.985   77.130   53.990   1.00   33.23        6
ATOM   11506   CD1   TYR   C1043        62.043   77.093   52.977   1.00   33.36        6
ATOM   11507   CE1   TYR   C1043        60.688   77.285   53.239   1.00   35.07        6
ATOM   11508   CD2   TYR   C1043        62.543   77.366   55.279   1.00   34.22        6
ATOM   11509   CE2   TYR   C1043        61.191   77.556   55.555   1.00   34.94        6
ATOM   11510   CZ    TYR   C1043        60.271   77.513   54.530   1.00   35.90        6
ATOM   11511   OH    TYR   C1043        58.938   77.694   54.796   1.00   37.46        8
ATOM   11512   C     TYR   C1043        66.609   76.918   54.949   1.00   48.24        6
ATOM   11513   O     TYR   C1043        67.292   77.269   55.899   1.00   50.24        8
ATOM   11514   N     GLY   C1044        66.890   75.841   54.240   1.00   34.49        7
ATOM   11515   CA    GLY   C1044        68.029   75.026   54.602   1.00   36.05        6
ATOM   11516   C     GLY   C1044        67.912   73.702   53.899   1.00   37.06        6
ATOM   11517   O     GLY   C1044        68.639   72.755   54.185   1.00   38.33        8
ATOM   11518   N     ALA   C1045        66.976   73.652   52.965   1.00   27.69        7
ATOM   11519   CA    ALA   C1045        66.715   72.462   52.185   1.00   28.56        6
ATOM   11520   CB    ALA   C1045        65.376   72.599   51.506   1.00   48.75        6
ATOM   11521   C     ALA   C1045        67.802   72.241   51.146   1.00   31.05        6
ATOM   11522   O     ALA   C1045        67.505   71.962   49.982   1.00   31.56        8
ATOM   11523   N     ALA   C1046        69.058   72.358   51.565   1.00   59.97        7
ATOM   11524   CA    ALA   C1046        70.181   72.176   50.655   1.00   62.18        6
ATOM   11525   CB    ALA   C1046        71.446   71.892   51.432   1.00   35.83        6
ATOM   11526   C     ALA   C1046        69.911   71.053   49.664   1.00   63.92        6
ATOM   11527   O     ALA   C1046        69.908   71.282   48.458   1.00   65.76        8
```

```
ATOM  11528  N   HIS C1047      69.661  69.848  50.167  1.00  17.97      7
ATOM  11529  CA  HIS C1047      69.401  68.702  49.289  1.00  18.62      6
ATOM  11530  CB  HIS C1047      69.140  67.441  50.111  1.00  82.51      6
ATOM  11531  CG  HIS C1047      70.311  67.004  50.928  1.00  86.23      6
ATOM  11532  CD2 HIS C1047      70.498  66.961  52.267  1.00  86.23      6
ATOM  11533  ND1 HIS C1047      71.488  66.569  50.362  1.00  87.32      7
ATOM  11534  CE1 HIS C1047      72.350  66.276  51.318  1.00  87.47      6
ATOM  11535  NE2 HIS C1047      71.773  66.505  52.484  1.00  87.30      7
ATOM  11536  C   HIS C1047      68.205  68.969  48.406  1.00  18.10      6
ATOM  11537  O   HIS C1047      68.251  68.774  47.192  1.00  16.18      8
ATOM  11538  N   THR C1048      67.128  69.410  49.042  1.00  41.71      7
ATOM  11539  CA  THR C1048      65.890  69.716  48.352  1.00  42.95      6
ATOM  11540  CB  THR C1048      64.840  70.267  49.349  1.00  25.95      6
ATOM  11541  OG1 THR C1048      64.529  69.265  50.326  1.00  24.53      8
ATOM  11542  CG2 THR C1048      63.574  70.664  48.636  1.00  25.54      6
ATOM  11543  C   THR C1048      66.194  70.736  47.258  1.00  44.10      6
ATOM  11544  O   THR C1048      65.448  70.859  46.285  1.00  45.27      8
ATOM  11545  N   LEU C1049      67.300  71.457  47.414  1.00  20.73      7
ATOM  11546  CA  LEU C1049      67.689  72.436  46.416  1.00  22.41      6
ATOM  11547  CB  LEU C1049      68.462  73.580  47.046  1.00  14.67      6
ATOM  11548  CG  LEU C1049      69.024  74.548  46.008  1.00  13.87      6
ATOM  11549  CD1 LEU C1049      67.920  75.428  45.470  1.00  13.87      6
ATOM  11550  CD2 LEU C1049      70.105  75.393  46.635  1.00  13.87      6
ATOM  11551  C   LEU C1049      68.532  71.800  45.307  1.00  25.25      6
ATOM  11552  O   LEU C1049      68.120  71.802  44.153  1.00  26.31      8
ATOM  11553  N   GLN C1050      69.699  71.253  45.643  1.00  68.14      7
ATOM  11554  CA  GLN C1050      70.576  70.610  44.646  1.00  70.78      6
ATOM  11555  CB  GLN C1050      71.694  69.829  45.351  1.00  70.95      6
ATOM  11556  CG  GLN C1050      72.576  68.969  44.445  1.00  71.54      6
ATOM  11557  CD  GLN C1050      73.733  68.324  45.201  1.00  73.07      6
ATOM  11558  OE1 GLN C1050      73.534  67.546  46.138  1.00  73.69      8
ATOM  11559  NE2 GLN C1050      74.951  68.652  44.795  1.00  73.59      7
ATOM  11560  C   GLN C1050      69.808  69.660  43.728  1.00  72.51      6
ATOM  11561  O   GLN C1050      70.227  69.362  42.612  1.00  74.13      8
ATOM  11562  N   GLU C1051      68.677  69.190  44.227  1.00  47.00      7
ATOM  11563  CA  GLU C1051      67.801  68.269  43.517  1.00  47.80      6
ATOM  11564  CB  GLU C1051      66.749  67.772  44.516  1.00  87.07      6
ATOM  11565  CG  GLU C1051      65.719  66.820  43.979  1.00  89.43      6
ATOM  11566  CD  GLU C1051      64.757  66.371  45.059  1.00  91.00      6
ATOM  11567  OE1 GLU C1051      64.244  67.239  45.798  1.00  91.45      8
ATOM  11568  OE2 GLU C1051      64.508  65.154  45.163  1.00  91.93      8
ATOM  11569  C   GLU C1051      67.142  68.955  42.320  1.00  46.49      6
ATOM  11570  O   GLU C1051      66.878  68.343  41.283  1.00  46.46      8
ATOM  11571  N   MET C1052      66.894  70.244  42.479  1.00  33.53      7
ATOM  11572  CA  MET C1052      66.252  71.033  41.452  1.00  32.50      6
ATOM  11573  CB  MET C1052      65.346  72.086  42.112  1.00  52.50      6
ATOM  11574  CG  MET C1052      63.843  71.788  41.962  1.00  54.28      6
ATOM  11575  SD  MET C1052      62.727  72.440  43.248  1.00  55.26     16
ATOM  11576  CE  MET C1052      61.470  71.163  43.275  1.00  53.55      6
ATOM  11577  C   MET C1052      67.248  71.682  40.501  1.00  30.92      6
ATOM  11578  O   MET C1052      66.957  72.690  39.876  1.00  30.06      8
ATOM  11579  N   LEU C1053      68.432  71.105  40.395  1.00  68.89      7
ATOM  11580  CA  LEU C1053      69.443  71.627  39.490  1.00  68.99      6
ATOM  11581  CB  LEU C1053      70.306  72.684  40.179  1.00  67.82      6
ATOM  11582  CG  LEU C1053      69.706  73.932  40.839  1.00  69.43      6
ATOM  11583  CD1 LEU C1053      68.706  74.629  39.927  1.00  68.76      6
```

207

ATOM	11584	CD2	LEU	C1053	69.050	73.528	42.126	1.00	70.12	6
ATOM	11585	C	LEU	C1053	70.295	70.423	39.138	1.00	68.46	6
ATOM	11586	O	LEU	C1053	71.409	70.545	38.637	1.00	69.90	8
ATOM	11587	N	THR	C1054	69.736	69.250	39.405	1.00	39.11	7
ATOM	11588	CA	THR	C1054	70.414	67.983	39.177	1.00	35.96	6
ATOM	11589	CB	THR	C1054	71.110	67.521	40.479	1.00	59.10	6
ATOM	11590	OG1	THR	C1054	71.969	68.562	40.951	1.00	60.89	8
ATOM	11591	CG2	THR	C1054	71.927	66.274	40.244	1.00	60.72	6
ATOM	11592	C	THR	C1054	69.382	66.932	38.774	1.00	33.47	6
ATOM	11593	O	THR	C1054	68.821	66.966	37.677	1.00	32.96	8
ATOM	11594	N	ILE	C1055	69.147	66.007	39.696	1.00	24.25	7
ATOM	11595	CA	ILE	C1055	68.202	64.917	39.547	1.00	22.76	6
ATOM	11596	CB	ILE	C1055	67.863	64.323	40.945	1.00	71.16	6
ATOM	11597	CG2	ILE	C1055	67.064	63.050	40.814	1.00	73.15	6
ATOM	11598	CG1	ILE	C1055	69.152	64.015	41.708	1.00	73.03	6
ATOM	11599	CD1	ILE	C1055	69.823	65.230	42.326	1.00	74.82	6
ATOM	11600	C	ILE	C1055	66.901	65.350	38.861	1.00	20.58	6
ATOM	11601	O	ILE	C1055	66.015	64.530	38.636	1.00	19.60	8
ATOM	11602	N	LYS	C1056	66.759	66.620	38.509	1.00	30.64	7
ATOM	11603	CA	LYS	C1056	65.512	67.010	37.867	1.00	29.46	6
ATOM	11604	CB	LYS	C1056	64.611	67.710	38.898	1.00	37.57	6
ATOM	11605	CG	LYS	C1056	64.300	66.874	40.146	1.00	36.56	6
ATOM	11606	CD	LYS	C1056	62.971	67.288	40.790	1.00	36.77	6
ATOM	11607	CE	LYS	C1056	63.164	67.898	42.175	1.00	36.68	6
ATOM	11608	NZ	LYS	C1056	61.899	68.327	42.849	1.00	36.50	7
ATOM	11609	C	LYS	C1056	65.588	67.850	36.581	1.00	28.70	6
ATOM	11610	O	LYS	C1056	64.594	68.448	36.175	1.00	27.32	8
ATOM	11611	N	SER	C1057	66.728	67.889	35.907	1.00	33.53	7
ATOM	11612	CA	SER	C1057	66.763	68.714	34.711	1.00	34.79	6
ATOM	11613	CB	SER	C1057	66.781	70.191	35.143	1.00	41.35	6
ATOM	11614	OG	SER	C1057	66.640	71.087	34.055	1.00	40.46	8
ATOM	11615	C	SER	C1057	67.892	68.432	33.709	1.00	36.44	6
ATOM	11616	O	SER	C1057	67.652	67.918	32.609	1.00	36.41	8
ATOM	11617	N	ASP	C1058	69.123	68.756	34.086	1.00	41.70	7
ATOM	11618	CA	ASP	C1058	70.250	68.572	33.189	1.00	42.89	6
ATOM	11619	CB	ASP	C1058	71.175	69.768	33.307	1.00	72.96	6
ATOM	11620	CG	ASP	C1058	70.419	71.041	33.543	1.00	75.70	6
ATOM	11621	OD1	ASP	C1058	69.565	71.384	32.697	1.00	76.87	8
ATOM	11622	OD2	ASP	C1058	70.670	71.691	34.580	1.00	76.41	8
ATOM	11623	C	ASP	C1058	71.037	67.315	33.453	1.00	43.10	6
ATOM	11624	O	ASP	C1058	71.460	66.637	32.514	1.00	44.09	8
ATOM	11625	N	ASP	C1059	71.240	67.022	34.734	1.00	40.94	7
ATOM	11626	CA	ASP	C1059	72.009	65.860	35.169	1.00	40.89	6
ATOM	11627	CB	ASP	C1059	72.100	65.851	36.693	1.00	59.93	6
ATOM	11628	CG	ASP	C1059	73.229	64.985	37.209	1.00	59.94	6
ATOM	11629	OD1	ASP	C1059	73.206	63.754	36.993	1.00	60.63	8
ATOM	11630	OD2	ASP	C1059	74.145	65.550	37.840	1.00	59.46	8
ATOM	11631	C	ASP	C1059	71.392	64.564	34.677	1.00	41.14	6
ATOM	11632	O	ASP	C1059	70.647	63.904	35.404	1.00	41.24	8
ATOM	11633	N	ILE	C1060	71.723	64.200	33.439	1.00	29.51	7
ATOM	11634	CA	ILE	C1060	71.194	62.996	32.809	1.00	29.42	6
ATOM	11635	CB	ILE	C1060	71.833	62.799	31.440	1.00	33.65	6
ATOM	11636	CG2	ILE	C1060	71.690	61.376	30.984	1.00	33.67	6
ATOM	11637	CG1	ILE	C1060	71.161	63.768	30.469	1.00	35.61	6
ATOM	11638	CD1	ILE	C1060	71.539	63.619	29.014	1.00	39.90	6
ATOM	11639	C	ILE	C1060	71.348	61.755	33.667	1.00	29.48	6

```
ATOM  11640  O    ILE C1060      70.389  60.999  33.844  1.00 28.33       8
ATOM  11641  N    GLU C1061      72.554  61.552  34.192  1.00 42.18       7
ATOM  11642  CA   GLU C1061      72.825  60.425  35.070  1.00 42.34       6
ATOM  11643  CB   GLU C1061      74.230  60.533  35.672  1.00 93.65       6
ATOM  11644  CG   GLU C1061      75.328  59.915  34.818  1.00 98.94       6
ATOM  11645  CD   GLU C1061      75.348  58.392  34.889  1.00101.92       6
ATOM  11646  OE1  GLU C1061      74.277  57.771  34.706  1.00102.54       8
ATOM  11647  OE2  GLU C1061      76.437  57.815  35.118  1.00104.01       8
ATOM  11648  C    GLU C1061      71.792  60.529  36.166  1.00 41.28       6
ATOM  11649  O    GLU C1061      70.786  59.832  36.139  1.00 41.16       8
ATOM  11650  N    GLY C1062      72.043  61.430  37.109  1.00 39.43       7
ATOM  11651  CA   GLY C1062      71.135  61.637  38.223  1.00 39.42       6
ATOM  11652  C    GLY C1062      69.658  61.633  37.873  1.00 39.41       6
ATOM  11653  O    GLY C1062      68.844  61.044  38.593  1.00 38.93       8
ATOM  11654  N    ALA C1063      69.299  62.298  36.781  1.00 30.84       7
ATOM  11655  CA   ALA C1063      67.903  62.332  36.359  1.00 30.59       6
ATOM  11656  CB   ALA C1063      67.787  62.893  34.957  1.00 25.00       6
ATOM  11657  C    ALA C1063      67.402  60.909  36.379  1.00 31.03       6
ATOM  11658  O    ALA C1063      66.524  60.565  37.159  1.00 30.00       8
ATOM  11659  N    ASN C1064      68.006  60.089  35.522  1.00 47.03       7
ATOM  11660  CA   ASN C1064      67.670  58.676  35.380  1.00 47.79       6
ATOM  11661  CB   ASN C1064      68.636  58.011  34.409  1.00 61.15       6
ATOM  11662  CG   ASN C1064      68.922  58.873  33.197  1.00 62.05       6
ATOM  11663  OD1  ASN C1064      68.104  59.695  32.793  1.00 61.27       8
ATOM  11664  ND2  ASN C1064      70.089  58.678  32.602  1.00 65.22       7
ATOM  11665  C    ASN C1064      67.684  57.930  36.707  1.00 48.16       6
ATOM  11666  O    ASN C1064      66.871  57.033  36.932  1.00 47.80       8
ATOM  11667  N    ALA C1065      68.614  58.293  37.582  1.00 40.42       7
ATOM  11668  CA   ALA C1065      68.692  57.667  38.894  1.00 42.32       6
ATOM  11669  CB   ALA C1065      69.823  58.272  39.703  1.00116.17       6
ATOM  11670  C    ALA C1065      67.366  57.943  39.570  1.00 43.55       6
ATOM  11671  O    ALA C1065      66.959  57.215  40.457  1.00 43.00       8
ATOM  11672  N    ALA C1066      66.693  59.003  39.134  1.00 53.27       7
ATOM  11673  CA   ALA C1066      65.398  59.367  39.695  1.00 55.91       6
ATOM  11674  CB   ALA C1066      65.098  60.833  39.421  1.00 50.08       6
ATOM  11675  C    ALA C1066      64.279  58.496  39.134  1.00 57.12       6
ATOM  11676  O    ALA C1066      63.570  57.829  39.880  1.00 57.12       8
ATOM  11677  N    TYR C1067      64.116  58.505  37.818  1.00 66.31       7
ATOM  11678  CA   TYR C1067      63.069  57.710  37.207  1.00 67.30       6
ATOM  11679  CB   TYR C1067      62.896  58.062  35.732  1.00 78.92       6
ATOM  11680  CG   TYR C1067      61.901  57.150  35.083  1.00 79.83       6
ATOM  11681  CD1  TYR C1067      60.603  57.066  35.571  1.00 80.62       6
ATOM  11682  CE1  TYR C1067      59.710  56.122  35.083  1.00 81.65       6
ATOM  11683  CD2  TYR C1067      62.282  56.275  34.076  1.00 79.94       6
ATOM  11684  CE2  TYR C1067      61.397  55.325  33.578  1.00 80.93       6
ATOM  11685  CZ   TYR C1067      60.113  55.252  34.092  1.00 81.31       6
ATOM  11686  OH   TYR C1067      59.242  54.286  33.643  1.00 81.64       8
ATOM  11687  C    TYR C1067      63.332  56.218  37.337  1.00 68.80       6
ATOM  11688  O    TYR C1067      62.598  55.402  36.781  1.00 67.61       8
ATOM  11689  N    GLN C1068      64.379  55.851  38.065  1.00 43.61       7
ATOM  11690  CA   GLN C1068      64.671  54.435  38.240  1.00 46.88       6
ATOM  11691  CB   GLN C1068      65.991  54.064  37.565  1.00108.79       6
ATOM  11692  CG   GLN C1068      66.158  52.564  37.355  1.00110.39       6
ATOM  11693  CD   GLN C1068      67.334  52.221  36.458  1.00112.30       6
ATOM  11694  OE1  GLN C1068      68.490  52.474  36.806  1.00113.10       8
ATOM  11695  NE2  GLN C1068      67.044  51.648  35.292  1.00112.89       7
```

209

```
ATOM   11696  C    GLN C1068      64.710  54.046  39.708  1.00  48.56      6
ATOM   11697  O    GLN C1068      64.021  53.124  40.126  1.00  48.70      8
ATOM   11698  N    ALA C1069      65.508  54.750  40.498  1.00  65.14      7
ATOM   11699  CA   ALA C1069      65.600  54.444  41.918  1.00  67.74      6
ATOM   11700  CB   ALA C1069      66.426  55.497  42.624  1.00 132.45      6
ATOM   11701  C    ALA C1069      64.220  54.356  42.562  1.00  69.46      6
ATOM   11702  O    ALA C1069      64.072  53.772  43.640  1.00  70.12      8
ATOM   11703  N    ILE C1070      63.219  54.944  41.901  1.00  60.17      7
ATOM   11704  CA   ILE C1070      61.837  54.940  42.391  1.00  61.46      6
ATOM   11705  CB   ILE C1070      61.097  56.264  42.055  1.00  86.63      6
ATOM   11706  CG2  ILE C1070      59.612  56.117  42.328  1.00  86.27      6
ATOM   11707  CG1  ILE C1070      61.634  57.413  42.915  1.00  86.82      6
ATOM   11708  CD1  ILE C1070      63.080  57.786  42.663  1.00  87.50      6
ATOM   11709  C    ILE C1070      61.101  53.788  41.734  1.00  62.66      6
ATOM   11710  O    ILE C1070      60.550  52.927  42.414  1.00  62.18      8
ATOM   11711  N    ILE C1071      61.104  53.779  40.405  1.00  97.42      7
ATOM   11712  CA   ILE C1071      60.455  52.722  39.645  1.00 100.40      6
ATOM   11713  CB   ILE C1071      60.830  52.798  38.144  1.00 191.02      6
ATOM   11714  CG2  ILE C1071      60.548  51.477  37.457  1.00 190.29      6
ATOM   11715  CG1  ILE C1071      60.015  53.897  37.464  1.00 192.69      6
ATOM   11716  CD1  ILE C1071      60.073  55.238  38.168  1.00 195.25      6
ATOM   11717  C    ILE C1071      60.932  51.415  40.241  1.00 101.61      6
ATOM   11718  O    ILE C1071      60.220  50.412  40.227  1.00 102.61      8
ATOM   11719  N    LYS C1072      62.147  51.443  40.779  1.00  94.80      7
ATOM   11720  CA   LYS C1072      62.712  50.269  41.410  1.00  96.43      6
ATOM   11721  CB   LYS C1072      64.188  50.479  41.747  1.00 112.40      6
ATOM   11722  CG   LYS C1072      65.154  50.269  40.588  1.00 113.75      6
ATOM   11723  CD   LYS C1072      66.592  50.345  41.091  1.00 113.38      6
ATOM   11724  CE   LYS C1072      67.602  50.149  39.977  1.00 113.27      6
ATOM   11725  NZ   LYS C1072      68.993  50.337  40.481  1.00 112.40      7
ATOM   11726  C    LYS C1072      61.933  50.021  42.686  1.00  97.49      6
ATOM   11727  O    LYS C1072      60.939  49.295  42.678  1.00  98.64      8
ATOM   11728  N    GLY C1073      62.368  50.631  43.782  1.00 108.77      7
ATOM   11729  CA   GLY C1073      61.663  50.415  45.029  1.00 110.58      6
ATOM   11730  C    GLY C1073      62.126  51.185  46.246  1.00 111.42      6
ATOM   11731  O    GLY C1073      62.131  52.413  46.261  1.00 111.19      8
ATOM   11732  N    ALA C1074      62.521  50.443  47.272  1.00 197.22      7
ATOM   11733  CA   ALA C1074      62.950  51.018  48.538  1.00 199.58      6
ATOM   11734  CB   ALA C1074      63.233  49.893  49.535  1.00 161.27      6
ATOM   11735  C    ALA C1074      64.122  51.999  48.536  1.00 200.96      6
ATOM   11736  O    ALA C1074      64.683  52.260  49.599  1.00 201.96      8
ATOM   11737  N    ASP C1075      64.504  52.558  47.388  1.00 106.63      7
ATOM   11738  CA   ASP C1075      65.621  53.504  47.413  1.00 106.82      6
ATOM   11739  CB   ASP C1075      66.910  52.832  46.930  1.00 182.53      6
ATOM   11740  CG   ASP C1075      68.151  53.417  47.594  1.00 183.78      6
ATOM   11741  OD1  ASP C1075      68.332  54.653  47.540  1.00 184.11      8
ATOM   11742  OD2  ASP C1075      68.944  52.642  48.173  1.00 184.82      8
ATOM   11743  C    ASP C1075      65.397  54.805  46.649  1.00 105.85      6
ATOM   11744  O    ASP C1075      64.748  54.828  45.607  1.00 104.76      8
ATOM   11745  N    VAL C1076      65.954  55.888  47.186  1.00  64.03      7
ATOM   11746  CA   VAL C1076      65.817  57.213  46.593  1.00  65.28      6
ATOM   11747  CB   VAL C1076      65.431  58.225  47.671  1.00 191.41      6
ATOM   11748  CG1  VAL C1076      63.923  58.256  47.825  1.00 192.81      6
ATOM   11749  CG2  VAL C1076      66.087  57.840  48.994  1.00 192.40      6
ATOM   11750  C    VAL C1076      67.070  57.714  45.872  1.00  65.50      6
ATOM   11751  O    VAL C1076      68.178  57.284  46.176  1.00  65.51      8
```

210

```
ATOM  11752  N    PRO C1077      66.902  58.647  44.917  1.00111.04      7
ATOM  11753  CD   PRO C1077      65.573  59.247  44.689  1.00 70.63      6
ATOM  11754  CA   PRO C1077      67.913  59.298  44.070  1.00111.78      6
ATOM  11755  CB   PRO C1077      67.199  60.568  43.629  1.00 70.35      6
ATOM  11756  CG   PRO C1077      65.788  60.092  43.455  1.00 70.28      6
ATOM  11757  C    PRO C1077      69.266  59.600  44.720  1.00112.57      6
ATOM  11758  O    PRO C1077      69.401  60.583  45.438  1.00113.94      8
ATOM  11759  N    GLU C1078      70.271  58.774  44.447  1.00187.01      7
ATOM  11760  CA   GLU C1078      71.597  58.981  45.029  1.00187.30      6
ATOM  11761  CB   GLU C1078      72.207  57.636  45.458  1.00208.87      6
ATOM  11762  CG   GLU C1078      71.522  56.942  46.631  1.00208.87      6
ATOM  11763  CD   GLU C1078      72.300  55.732  47.123  1.00208.87      6
ATOM  11764  OE1  GLU C1078      73.466  55.905  47.538  1.00208.87      8
ATOM  11765  OE2  GLU C1078      71.751  54.609  47.090  1.00208.87      8
ATOM  11766  C    GLU C1078      72.582  59.693  44.093  1.00186.18      6
ATOM  11767  O    GLU C1078      73.208  59.052  43.249  1.00187.10      8
ATOM  11768  N    PRO C1079      72.731  61.026  44.225  1.00130.53      7
ATOM  11769  CD   PRO C1079      71.867  61.981  44.936  1.00103.91      6
ATOM  11770  CA   PRO C1079      73.673  61.737  43.347  1.00129.47      6
ATOM  11771  CB   PRO C1079      73.234  63.197  43.451  1.00103.50      6
ATOM  11772  CG   PRO C1079      71.819  63.118  43.956  1.00103.40      6
ATOM  11773  C    PRO C1079      75.096  61.557  43.851  1.00128.55      6
ATOM  11774  O    PRO C1079      75.384  60.626  44.603  1.00128.85      8
ATOM  11775  N    SER C1080      75.977  62.463  43.442  1.00111.85      7
ATOM  11776  CA   SER C1080      77.379  62.436  43.853  1.00110.74      6
ATOM  11777  CB   SER C1080      78.015  61.065  43.547  1.00111.30      6
ATOM  11778  OG   SER C1080      77.944  60.727  42.169  1.00111.57      8
ATOM  11779  C    SER C1080      78.114  63.548  43.113  1.00109.52      6
ATOM  11780  O    SER C1080      78.454  64.585  43.688  1.00109.21      8
ATOM  11781  N    VAL C1081      78.352  63.325  41.828  1.00103.22      7
ATOM  11782  CA   VAL C1081      79.011  64.310  40.986  1.00101.81      6
ATOM  11783  CB   VAL C1081      79.813  63.628  39.853  1.00208.87      6
ATOM  11784  CG1  VAL C1081      80.636  64.657  39.101  1.00208.87      6
ATOM  11785  CG2  VAL C1081      80.704  62.540  40.424  1.00208.87      6
ATOM  11786  C    VAL C1081      77.879  65.129  40.364  1.00 99.68      6
ATOM  11787  O    VAL C1081      76.917  64.577  39.835  1.00 99.10      8
ATOM  11788  N    PRO C1082      77.951  66.456  40.458  1.00 54.33      7
ATOM  11789  CD   PRO C1082      78.776  67.272  41.363  1.00200.29      6
ATOM  11790  CA   PRO C1082      76.878  67.244  39.861  1.00 52.51      6
ATOM  11791  CB   PRO C1082      76.885  68.513  40.699  1.00198.94      6
ATOM  11792  CG   PRO C1082      78.331  68.671  41.026  1.00200.17      6
ATOM  11793  C    PRO C1082      77.158  67.503  38.382  1.00 51.25      6
ATOM  11794  O    PRO C1082      78.189  68.066  38.014  1.00 51.33      8
ATOM  11795  N    GLU C1083      76.230  67.072  37.540  1.00 56.19      7
ATOM  11796  CA   GLU C1083      76.328  67.242  36.097  1.00 55.63      6
ATOM  11797  CB   GLU C1083      74.957  66.993  35.465  1.00190.05      6
ATOM  11798  CG   GLU C1083      74.875  67.163  33.954  1.00192.19      6
ATOM  11799  CD   GLU C1083      74.970  65.847  33.206  1.00193.81      6
ATOM  11800  OE1  GLU C1083      74.245  64.896  33.570  1.00194.43      8
ATOM  11801  OE2  GLU C1083      75.762  65.764  32.244  1.00194.82      8
ATOM  11802  C    GLU C1083      76.809  68.639  35.719  1.00 53.58      6
ATOM  11803  O    GLU C1083      77.360  68.841  34.643  1.00 53.37      8
ATOM  11804  N    SER C1084      76.588  69.605  36.599  1.00 91.83      7
ATOM  11805  CA   SER C1084      77.005  70.963  36.313  1.00 91.20      6
ATOM  11806  CB   SER C1084      76.183  71.953  37.129  1.00 63.68      6
ATOM  11807  OG   SER C1084      74.810  71.853  36.795  1.00 65.09      8
```

211

```
ATOM   11808  C    SER C1084      78.479  71.168  36.593  1.00 90.21      6
ATOM   11809  O    SER C1084      79.224  71.583  35.706  1.00 90.86      8
ATOM   11810  N    PHE C1085      78.903  70.873  37.819  1.00103.08      7
ATOM   11811  CA   PHE C1085      80.304  71.045  38.209  1.00100.39      6
ATOM   11812  CB   PHE C1085      80.544  70.506  39.623  1.00 70.97      6
ATOM   11813  CG   PHE C1085      81.844  70.954  40.245  1.00 71.55      6
ATOM   11814  CD1  PHE C1085      82.457  72.134  39.849  1.00 71.72      6
ATOM   11815  CD2  PHE C1085      82.427  70.213  41.270  1.00 72.44      6
ATOM   11816  CE1  PHE C1085      83.629  72.563  40.466  1.00 71.44      6
ATOM   11817  CE2  PHE C1085      83.597  70.637  41.890  1.00 71.86      6
ATOM   11818  CZ   PHE C1085      84.197  71.811  41.489  1.00 71.39      6
ATOM   11819  C    PHE C1085      81.195  70.314  37.234  1.00 98.75      6
ATOM   11820  O    PHE C1085      82.272  70.796  36.894  1.00100.33      8
ATOM   11821  N    ALA C1086      80.729  69.154  36.782  1.00 37.35      7
ATOM   11822  CA   ALA C1086      81.484  68.344  35.838  1.00 34.90      6
ATOM   11823  CB   ALA C1086      80.845  66.966  35.714  1.00 13.87      6
ATOM   11824  C    ALA C1086      81.615  69.002  34.454  1.00 33.37      6
ATOM   11825  O    ALA C1086      82.555  68.729  33.708  1.00 34.08      8
ATOM   11826  N    VAL C1087      80.690  69.885  34.108  1.00 36.24      7
ATOM   11827  CA   VAL C1087      80.763  70.535  32.813  1.00 35.38      6
ATOM   11828  CB   VAL C1087      79.392  70.536  32.122  1.00 46.83      6
ATOM   11829  CG1  VAL C1087      79.498  71.144  30.741  1.00 46.97      6
ATOM   11830  CG2  VAL C1087      78.877  69.122  32.026  1.00 47.66      6
ATOM   11831  C    VAL C1087      81.282  71.958  32.930  1.00 34.55      6
ATOM   11832  O    VAL C1087      81.422  72.652  31.929  1.00 33.81      8
ATOM   11833  N    LEU C1088      81.570  72.406  34.145  1.00 98.32      7
ATOM   11834  CA   LEU C1088      82.097  73.753  34.290  1.00 98.34      6
ATOM   11835  CB   LEU C1088      81.884  74.307  35.699  1.00 20.30      6
ATOM   11836  CG   LEU C1088      82.332  75.769  35.855  1.00 17.77      6
ATOM   11837  CD1  LEU C1088      81.606  76.670  34.873  1.00 17.28      6
ATOM   11838  CD2  LEU C1088      82.065  76.227  37.262  1.00 18.02      6
ATOM   11839  C    LEU C1088      83.582  73.689  34.009  1.00 99.79      6
ATOM   11840  O    LEU C1088      84.134  74.546  33.323  1.00101.96      8
ATOM   11841  N    VAL C1089      84.229  72.659  34.539  1.00 79.95      7
ATOM   11842  CA   VAL C1089      85.655  72.507  34.336  1.00 80.12      6
ATOM   11843  CB   VAL C1089      86.213  71.335  35.175  1.00 62.80      6
ATOM   11844  CG1  VAL C1089      87.723  71.294  35.082  1.00 65.03      6
ATOM   11845  CG2  VAL C1089      85.806  71.500  36.616  1.00 62.52      6
ATOM   11846  C    VAL C1089      85.951  72.278  32.853  1.00 79.71      6
ATOM   11847  O    VAL C1089      86.784  72.976  32.272  1.00 79.69      8
ATOM   11848  N    ALA C1090      85.250  71.327  32.236  1.00 80.39      7
ATOM   11849  CA   ALA C1090      85.479  71.010  30.827  1.00 80.44      6
ATOM   11850  CB   ALA C1090      84.991  69.592  30.515  1.00 13.87      6
ATOM   11851  C    ALA C1090      84.870  72.005  29.850  1.00 81.27      6
ATOM   11852  O    ALA C1090      84.588  71.668  28.704  1.00 82.52      8
ATOM   11853  N    GLU C1091      84.666  73.232  30.311  1.00 26.75      7
ATOM   11854  CA   GLU C1091      84.126  74.305  29.469  1.00 28.33      6
ATOM   11855  CB   GLU C1091      82.728  74.712  29.921  1.00 76.31      6
ATOM   11856  CG   GLU C1091      81.608  74.061  29.146  1.00 77.14      6
ATOM   11857  CD   GLU C1091      80.259  74.579  29.576  1.00 77.62      6
ATOM   11858  OE1  GLU C1091      80.114  75.815  29.672  1.00 77.82      8
ATOM   11859  OE2  GLU C1091      79.351  73.758  29.813  1.00 78.87      8
ATOM   11860  C    GLU C1091      85.046  75.508  29.601  1.00 28.72      6
ATOM   11861  O    GLU C1091      84.984  76.452  28.810  1.00 27.52      8
ATOM   11862  N    LEU C1092      85.873  75.455  30.643  1.00 80.09      7
ATOM   11863  CA   LEU C1092      86.862  76.477  30.961  1.00 82.54      6
```

212

```
ATOM  11864  CB   LEU C1092      87.006  76.608  32.486  1.00 54.50      6
ATOM  11865  CG   LEU C1092      85.982  77.409  33.314  1.00 53.94      6
ATOM  11866  CD1  LEU C1092      85.982  76.931  34.770  1.00 52.07      6
ATOM  11867  CD2  LEU C1092      86.313  78.902  33.235  1.00 54.02      6
ATOM  11868  C    LEU C1092      88.173  75.989  30.342  1.00 84.64      6
ATOM  11869  O    LEU C1092      89.037  76.784  29.962  1.00 85.41      8
ATOM  11870  N    GLN C1093      88.300  74.666  30.244  1.00 69.69      7
ATOM  11871  CA   GLN C1093      89.478  74.027  29.659  1.00 70.75      6
ATOM  11872  CB   GLN C1093      89.419  72.507  29.858  1.00 73.27      6
ATOM  11873  CG   GLN C1093      89.389  72.057  31.307  1.00 75.10      6
ATOM  11874  CD   GLN C1093      89.788  70.603  31.471  1.00 76.28      6
ATOM  11875  OE1  GLN C1093      89.255  69.723  30.801  1.00 78.19      8
ATOM  11876  NE2  GLN C1093      90.721  70.343  32.375  1.00 77.68      7
ATOM  11877  C    GLN C1093      89.535  74.336  28.164  1.00 71.47      6
ATOM  11878  O    GLN C1093      90.607  74.397  27.555  1.00 71.73      8
ATOM  11879  N    ALA C1094      88.359  74.514  27.579  1.00 80.43      7
ATOM  11880  CA   ALA C1094      88.272  74.821  26.168  1.00 81.50      6
ATOM  11881  CB   ALA C1094      86.815  74.888  25.734  1.00133.59      6
ATOM  11882  C    ALA C1094      88.956  76.156  25.937  1.00 81.84      6
ATOM  11883  O    ALA C1094      89.576  76.371  24.901  1.00 81.71      8
ATOM  11884  N    LEU C1095      88.843  77.052  26.910  1.00 68.21      7
ATOM  11885  CA   LEU C1095      89.458  78.362  26.795  1.00 69.70      6
ATOM  11886  CB   LEU C1095      88.677  79.389  27.608  1.00115.57      6
ATOM  11887  CG   LEU C1095      87.746  80.297  26.801  1.00115.82      6
ATOM  11888  CD1  LEU C1095      86.714  79.464  26.081  1.00115.43      6
ATOM  11889  CD2  LEU C1095      87.074  81.305  27.729  1.00117.08      6
ATOM  11890  C    LEU C1095      90.904  78.307  27.265  1.00 70.83      6
ATOM  11891  O    LEU C1095      91.561  79.335  27.443  1.00 71.86      8
ATOM  11892  N    ALA C1096      91.394  77.090  27.460  1.00118.71      7
ATOM  11893  CA   ALA C1096      92.768  76.880  27.887  1.00119.87      6
ATOM  11894  CB   ALA C1096      93.721  77.602  26.936  1.00 94.68      6
ATOM  11895  C    ALA C1096      93.011  77.340  29.319  1.00120.32      6
ATOM  11896  O    ALA C1096      93.966  78.068  29.589  1.00120.38      8
ATOM  11897  N    LEU C1097      92.153  76.911  30.237  1.00 50.53      7
ATOM  11898  CA   LEU C1097      92.308  77.281  31.634  1.00 51.98      6
ATOM  11899  CB   LEU C1097      91.129  78.148  32.082  1.00 68.25      6
ATOM  11900  CG   LEU C1097      90.549  79.187  31.113  1.00 70.05      6
ATOM  11901  CD1  LEU C1097      89.371  79.874  31.765  1.00 70.81      6
ATOM  11902  CD2  LEU C1097      91.586  80.214  30.738  1.00 70.47      6
ATOM  11903  C    LEU C1097      92.333  75.991  32.434  1.00 52.35      6
ATOM  11904  O    LEU C1097      91.460  75.151  32.259  1.00 53.22      8
ATOM  11905  N    ASP C1098      93.330  75.806  33.291  1.00110.12      7
ATOM  11906  CA   ASP C1098      93.369  74.591  34.097  1.00110.77      6
ATOM  11907  CB   ASP C1098      94.808  74.174  34.418  1.00134.82      6
ATOM  11908  CG   ASP C1098      94.885  72.805  35.100  1.00136.59      6
ATOM  11909  OD1  ASP C1098      94.194  72.603  36.120  1.00137.99      8
ATOM  11910  OD2  ASP C1098      95.637  71.929  34.618  1.00137.11      8
ATOM  11911  C    ASP C1098      92.618  74.887  35.389  1.00109.91      6
ATOM  11912  O    ASP C1098      92.992  75.794  36.137  1.00110.36      8
ATOM  11913  N    VAL C1099      91.554  74.132  35.647  1.00 34.21      7
ATOM  11914  CA   VAL C1099      90.763  74.347  36.848  1.00 33.94      6
ATOM  11915  CB   VAL C1099      89.252  74.325  36.530  1.00110.48      6
ATOM  11916  CG1  VAL C1099      88.458  74.607  37.780  1.00111.53      6
ATOM  11917  CG2  VAL C1099      88.925  75.361  35.470  1.00110.23      6
ATOM  11918  C    VAL C1099      91.083  73.258  37.853  1.00 34.64      6
ATOM  11919  O    VAL C1099      90.225  72.460  38.225  1.00 35.09      8
```

```
ATOM   11920  N   GLN C1100      92.332  73.227  38.293  1.00  47.29      7
ATOM   11921  CA  GLN C1100      92.741  72.219  39.253  1.00  48.51      6
ATOM   11922  CB  GLN C1100      94.199  72.437  39.681  1.00208.87      6
ATOM   11923  CG  GLN C1100      95.220  71.846  38.706  1.00208.87      6
ATOM   11924  CD  GLN C1100      96.653  71.976  39.195  1.00208.87      6
ATOM   11925  OE1 GLN C1100      96.973  71.603  40.325  1.00208.87      8
ATOM   11926  NE2 GLN C1100      97.527  72.493  38.339  1.00208.87      7
ATOM   11927  C   GLN C1100      91.823  72.217  40.462  1.00  47.63      6
ATOM   11928  O   GLN C1100      91.685  73.213  41.158  1.00  47.48      8
ATOM   11929  N   THR C1101      91.190  71.082  40.700  1.00  68.00      7
ATOM   11930  CA  THR C1101      90.286  70.942  41.820  1.00  67.53      6
ATOM   11931  CB  THR C1101      89.096  70.076  41.412  1.00  37.08      6
ATOM   11932  OG1 THR C1101      88.482  70.651  40.250  1.00  37.01      8
ATOM   11933  CG2 THR C1101      88.076  69.995  42.539  1.00  36.67      6
ATOM   11934  C   THR C1101      91.028  70.307  42.991  1.00  67.60      6
ATOM   11935  O   THR C1101      91.610  69.240  42.850  1.00  68.10      8
ATOM   11936  N   ALA C1102      91.016  70.972  44.143  1.00  69.32      7
ATOM   11937  CA  ALA C1102      91.705  70.460  45.326  1.00  69.08      6
ATOM   11938  CB  ALA C1102      92.779  71.461  45.768  1.00  31.96      6
ATOM   11939  C   ALA C1102      90.766  70.132  46.500  1.00  68.74      6
ATOM   11940  O   ALA C1102      89.731  70.779  46.698  1.00  67.72      8
ATOM   11941  N   ASP C1103      91.150  69.115  47.270  1.00  77.27      7
ATOM   11942  CA  ASP C1103      90.382  68.660  48.421  1.00  77.46      6
ATOM   11943  CB  ASP C1103      90.421  67.136  48.507  1.00132.50      6
ATOM   11944  CG  ASP C1103      90.062  66.474  47.196  1.00133.78      6
ATOM   11945  OD1 ASP C1103      88.950  66.734  46.690  1.00133.76      8
ATOM   11946  OD2 ASP C1103      90.892  65.697  46.671  1.00135.67      8
ATOM   11947  C   ASP C1103      90.928  69.243  49.715  1.00  77.10      6
ATOM   11948  O   ASP C1103      92.027  69.783  49.747  1.00  77.24      8
ATOM   11949  N   GLU C1104      90.140  69.120  50.776  1.00  42.97      7
ATOM   11950  CA  GLU C1104      90.485  69.617  52.102  1.00  43.55      6
ATOM   11951  CB  GLU C1104      90.324  68.490  53.128  1.00  98.33      6
ATOM   11952  CG  GLU C1104      88.952  67.824  53.117  1.00  99.43      6
ATOM   11953  CD  GLU C1104      89.004  66.358  53.521  1.00  99.94      6
ATOM   11954  OE1 GLU C1104      89.445  66.060  54.652  1.00  99.93      8
ATOM   11955  OE2 GLU C1104      88.602  65.502  52.699  1.00100.38      8
ATOM   11956  C   GLU C1104      91.900  70.158  52.174  1.00  44.00      6
ATOM   11957  O   GLU C1104      92.115  71.361  52.119  1.00  43.19      8
ATOM   11958  N   ALA C1105      92.858  69.242  52.267  1.00  86.07      7
ATOM   11959  CA  ALA C1105      94.272  69.570  52.388  1.00  88.23      6
ATOM   11960  CB  ALA C1105      95.068  68.291  52.644  1.00  96.16      6
ATOM   11961  C   ALA C1105      94.911  70.352  51.242  1.00  89.73      6
ATOM   11962  O   ALA C1105      96.135  70.408  51.153  1.00  90.32      8
ATOM   11963  N   ASP C1106      94.099  70.947  50.373  1.00  86.54      7
ATOM   11964  CA  ASP C1106      94.603  71.743  49.246  1.00  88.53      6
ATOM   11965  CB  ASP C1106      95.490  72.881  49.763  1.00102.54      6
ATOM   11966  CG  ASP C1106      95.689  73.985  48.738  1.00104.21      6
ATOM   11967  OD1 ASP C1106      95.933  73.683  47.548  1.00104.19      8
ATOM   11968  OD2 ASP C1106      95.608  75.165  49.135  1.00105.52      8
ATOM   11969  C   ASP C1106      95.393  70.930  48.226  1.00  89.27      6
ATOM   11970  O   ASP C1106      95.259  71.115  47.022  1.00  89.36      8
ATOM   11971  N   ASN C1107      96.223  70.029  48.725  1.00  70.86      7
ATOM   11972  CA  ASN C1107      97.051  69.192  47.875  1.00  72.87      6
ATOM   11973  CB  ASN C1107      98.479  69.145  48.443  1.00208.73      6
ATOM   11974  CG  ASN C1107      99.510  68.690  47.421  1.00208.87      6
ATOM   11975  OD1 ASN C1107      99.637  67.500  47.131  1.00208.87      8
```

214

```
ATOM   11976  ND2 ASN C1107     100.252  69.644  46.867  1.00208.87      7
ATOM   11977  C   ASN C1107      96.506  67.770  47.684  1.00 74.17      6
ATOM   11978  O   ASN C1107      97.271  66.835  47.437  1.00 73.99      8
ATOM   11979  N   PRO C1108      95.185  67.574  47.852  1.00193.02      7
ATOM   11980  CD  PRO C1108      94.241  68.298  48.713  1.00135.94      6
ATOM   11981  CA  PRO C1108      94.694  66.211  47.643  1.00193.97      6
ATOM   11982  CB  PRO C1108      93.555  66.082  48.658  1.00135.66      6
ATOM   11983  CG  PRO C1108      93.788  67.206  49.627  1.00136.16      6
ATOM   11984  C   PRO C1108      94.168  66.195  46.215  1.00194.79      6
ATOM   11985  O   PRO C1108      93.570  65.218  45.772  1.00196.01      8
ATOM   11986  N   VAL C1109      94.404  67.310  45.523  1.00 53.75      7
ATOM   11987  CA  VAL C1109      93.978  67.531  44.149  1.00 53.98      6
ATOM   11988  CB  VAL C1109      95.182  67.519  43.174  1.00138.02      6
ATOM   11989  CG1 VAL C1109      95.920  66.201  43.266  1.00138.58      6
ATOM   11990  CG2 VAL C1109      94.704  67.771  41.751  1.00138.25      6
ATOM   11991  C   VAL C1109      92.928  66.530  43.689  1.00 54.50      6
ATOM   11992  O   VAL C1109      93.217  65.357  43.465  1.00 54.78      8
ATOM   11993  N   ALA C1110      91.698  67.016  43.561  1.00156.36      7
ATOM   11994  CA  ALA C1110      90.553  66.221  43.135  1.00156.93      6
ATOM   11995  CB  ALA C1110      89.468  67.132  42.642  1.00 33.55      6
ATOM   11996  C   ALA C1110      90.858  65.197  42.061  1.00157.67      6
ATOM   11997  O   ALA C1110      91.844  65.307  41.334  1.00158.25      8
ATOM   11998  N   VAL C1111      89.983  64.206  41.959  1.00134.81      7
ATOM   11999  CA  VAL C1111      90.130  63.154  40.967  1.00135.66      6
ATOM   12000  CB  VAL C1111      90.197  61.762  41.639  1.00184.71      6
ATOM   12001  CG1 VAL C1111      90.488  60.684  40.600  1.00185.47      6
ATOM   12002  CG2 VAL C1111      91.278  61.765  42.712  1.00184.30      6
ATOM   12003  C   VAL C1111      88.936  63.219  40.021  1.00136.00      6
ATOM   12004  O   VAL C1111      88.652  62.273  39.286  1.00136.25      8
ATOM   12005  N   PHE C1112      88.248  64.357  40.042  1.00208.87      7
ATOM   12006  CA  PHE C1112      87.077  64.584  39.198  1.00208.87      6
ATOM   12007  CB  PHE C1112      86.715  66.066  39.199  1.00108.43      6
ATOM   12008  CG  PHE C1112      85.570  66.397  40.084  1.00109.00      6
ATOM   12009  CD1 PHE C1112      85.651  66.184  41.452  1.00108.81      6
ATOM   12010  CD2 PHE C1112      84.395  66.901  39.548  1.00109.81      6
ATOM   12011  CE1 PHE C1112      84.569  66.465  42.281  1.00109.57      6
ATOM   12012  CE2 PHE C1112      83.306  67.185  40.364  1.00110.53      6
ATOM   12013  CZ  PHE C1112      83.392  66.967  41.736  1.00110.35      6
ATOM   12014  C   PHE C1112      87.214  64.119  37.758  1.00208.87      6
ATOM   12015  O   PHE C1112      88.323  63.986  37.232  1.00208.87      8
ATOM   12016  N   GLU C1113      86.066  63.890  37.126  1.00148.57      7
ATOM   12017  CA  GLU C1113      86.011  63.437  35.744  1.00147.45      6
ATOM   12018  CB  GLU C1113      86.270  64.612  34.795  1.00 68.95      6
ATOM   12019  CG  GLU C1113      85.067  65.521  34.634  1.00 66.74      6
ATOM   12020  CD  GLU C1113      85.388  66.774  33.864  1.00 67.07      6
ATOM   12021  OE1 GLU C1113      85.761  66.675  32.674  1.00 68.90      8
ATOM   12022  OE2 GLU C1113      85.272  67.865  34.458  1.00 66.89      8
ATOM   12023  C   GLU C1113      86.966  62.283  35.459  1.00147.59      6
ATOM   12024  O   GLU C1113      87.214  61.933  34.306  1.00147.97      8
ATOM   12025  N   GLY C1114      87.502  61.696  36.523  1.00180.49      7
ATOM   12026  CA  GLY C1114      88.386  60.561  36.364  1.00179.91      6
ATOM   12027  C   GLY C1114      87.451  59.414  36.050  1.00179.79      6
ATOM   12028  O   GLY C1114      87.791  58.242  36.202  1.00180.67      8
ATOM   12029  N   LEU C1115      86.251  59.788  35.613  1.00166.38      7
ATOM   12030  CA  LEU C1115      85.181  58.864  35.260  1.00165.01      6
ATOM   12031  CB  LEU C1115      85.577  58.003  34.054  1.00 69.73      6
```

215

```
ATOM   12032  CG   LEU C1115      86.075  58.719  32.790  1.00 68.63      6
ATOM   12033  CD1  LEU C1115      85.550  57.976  31.573  1.00 67.50      6
ATOM   12034  CD2  LEU C1115      85.604  60.162  32.749  1.00 68.11      6
ATOM   12035  C    LEU C1115      84.822  57.971  36.438  1.00165.21      6
ATOM   12036  O    LEU C1115      83.697  58.111  36.959  1.00165.67      8
ATOM   12037  OXT  LEU C1115      85.673  57.151  36.834  1.00 71.04      8
ATOM   12038  CB   LYS D   3      88.513  62.331  48.194  1.00118.47      6
ATOM   12039  CG   LYS D   3      89.024  63.117  49.388  1.00119.73      6
ATOM   12040  CD   LYS D   3      90.540  63.004  49.475  1.00120.29      6
ATOM   12041  CE   LYS D   3      91.089  63.665  50.730  1.00121.57      6
ATOM   12042  NZ   LYS D   3      92.578  63.555  50.820  1.00121.53      7
ATOM   12043  C    LYS D   3      86.420  63.574  47.574  1.00 65.05      6
ATOM   12044  O    LYS D   3      86.688  63.995  46.452  1.00 65.91      8
ATOM   12045  N    LYS D   3      86.624  61.180  47.108  1.00 63.59      7
ATOM   12046  CA   LYS D   3      86.990  62.249  48.074  1.00 64.77      6
ATOM   12047  N    ALA D   4      85.627  64.228  48.411  1.00 63.09      7
ATOM   12048  CA   ALA D   4      84.999  65.494  48.043  1.00 62.71      6
ATOM   12049  CB   ALA D   4      83.970  65.899  49.098  1.00171.20      6
ATOM   12050  C    ALA D   4      86.019  66.588  47.887  1.00 62.16      6
ATOM   12051  O    ALA D   4      87.126  66.492  48.405  1.00 60.59      8
ATOM   12052  N    VAL D   5      85.630  67.635  47.174  1.00 88.37      7
ATOM   12053  CA   VAL D   5      86.504  68.771  46.958  1.00 88.36      6
ATOM   12054  CB   VAL D   5      86.353  69.327  45.523  1.00 97.05      6
ATOM   12055  CG1  VAL D   5      86.047  68.195  44.564  1.00 98.63      6
ATOM   12056  CG2  VAL D   5      85.267  70.376  45.467  1.00 96.87      6
ATOM   12057  C    VAL D   5      86.123  69.854  47.967  1.00 87.93      6
ATOM   12058  O    VAL D   5      85.135  69.723  48.693  1.00 89.18      8
ATOM   12059  N    ARG D   6      86.916  70.919  48.016  1.00 73.00      7
ATOM   12060  CA   ARG D   6      86.656  72.029  48.927  1.00 72.03      6
ATOM   12061  CB   ARG D   6      87.532  71.919  50.170  1.00108.72      6
ATOM   12062  CG   ARG D   6      87.374  70.629  50.944  1.00110.80      6
ATOM   12063  CD   ARG D   6      86.008  70.481  51.594  1.00111.86      6
ATOM   12064  NE   ARG D   6      86.035  69.364  52.530  1.00113.64      7
ATOM   12065  CZ   ARG D   6      85.008  68.984  53.275  1.00115.19      6
ATOM   12066  NH1  ARG D   6      83.856  69.633  53.194  1.00116.42      7
ATOM   12067  NH2  ARG D   6      85.141  67.961  54.109  1.00115.84      7
ATOM   12068  C    ARG D   6      86.971  73.331  48.216  1.00 70.72      6
ATOM   12069  O    ARG D   6      86.745  74.416  48.751  1.00 70.74      8
ATOM   12070  N    ALA D   7      87.499  73.211  47.006  1.00 72.80      7
ATOM   12071  CA   ALA D   7      87.850  74.375  46.221  1.00 71.37      6
ATOM   12072  CB   ALA D   7      89.278  74.779  46.512  1.00 49.57      6
ATOM   12073  C    ALA D   7      87.687  74.065  44.748  1.00 70.55      6
ATOM   12074  O    ALA D   7      87.147  73.022  44.379  1.00 71.42      8
ATOM   12075  N    VAL D   8      88.147  74.988  43.913  1.00 41.62      7
ATOM   12076  CA   VAL D   8      88.076  74.824  42.473  1.00 39.89      6
ATOM   12077  CB   VAL D   8      86.912  75.617  41.870  1.00 59.38      6
ATOM   12078  CG1  VAL D   8      86.998  75.615  40.369  1.00 58.63      6
ATOM   12079  CG2  VAL D   8      85.607  74.980  42.279  1.00 60.49      6
ATOM   12080  C    VAL D   8      89.383  75.323  41.908  1.00 39.57      6
ATOM   12081  O    VAL D   8      90.024  74.633  41.119  1.00 39.83      8
ATOM   12082  N    ALA D   9      89.773  76.527  42.317  1.00 41.52      7
ATOM   12083  CA   ALA D   9      91.031  77.126  41.880  1.00 41.38      6
ATOM   12084  CB   ALA D   9      92.188  76.489  42.640  1.00116.73      6
ATOM   12085  C    ALA D   9      91.325  77.086  40.376  1.00 41.12      6
ATOM   12086  O    ALA D   9      91.858  76.100  39.852  1.00 40.67      8
ATOM   12087  N    ILE D  10      90.979  78.175  39.695  1.00 55.36      7
```

216

ATOM	12088	CA	ILE	D	10	91.232	78.315	38.265	1.00	55.98	6
ATOM	12089	CB	ILE	D	10	90.593	79.618	37.711	1.00	52.97	6
ATOM	12090	CG2	ILE	D	10	91.315	80.825	38.284	1.00	53.12	6
ATOM	12091	CG1	ILE	D	10	90.667	79.658	36.182	1.00	52.23	6
ATOM	12092	CD1	ILE	D	10	89.941	78.530	35.503	1.00	52.81	6
ATOM	12093	C	ILE	D	10	92.752	78.410	38.148	1.00	57.26	6
ATOM	12094	O	ILE	D	10	93.466	78.331	39.147	1.00	58.01	8
ATOM	12095	N	ALA	D	11	93.259	78.597	36.942	1.00	59.14	7
ATOM	12096	CA	ALA	D	11	94.696	78.681	36.782	1.00	60.37	6
ATOM	12097	CB	ALA	D	11	95.339	77.364	37.208	1.00	149.08	6
ATOM	12098	C	ALA	D	11	95.075	79.000	35.351	1.00	61.39	6
ATOM	12099	O	ALA	D	11	94.424	79.818	34.693	1.00	60.91	8
ATOM	12100	N	LEU	D	12	96.134	78.343	34.881	1.00	99.18	7
ATOM	12101	CA	LEU	D	12	96.629	78.540	33.530	1.00	99.22	6
ATOM	12102	CB	LEU	D	12	97.747	79.569	33.546	1.00	45.78	6
ATOM	12103	CG	LEU	D	12	97.829	80.343	32.238	1.00	45.71	6
ATOM	12104	CD1	LEU	D	12	96.456	80.845	31.783	1.00	45.35	6
ATOM	12105	CD2	LEU	D	12	98.767	81.492	32.463	1.00	46.63	6
ATOM	12106	C	LEU	D	12	97.119	77.221	32.939	1.00	99.44	6
ATOM	12107	O	LEU	D	12	97.801	76.445	33.614	1.00	99.97	8
ATOM	12108	N	ALA	D	13	96.773	76.984	31.673	1.00	88.25	7
ATOM	12109	CA	ALA	D	13	97.125	75.740	30.989	1.00	88.08	6
ATOM	12110	CB	ALA	D	13	95.862	75.096	30.431	1.00	145.76	6
ATOM	12111	C	ALA	D	13	98.177	75.838	29.886	1.00	87.96	6
ATOM	12112	O	ALA	D	13	97.905	76.324	28.785	1.00	87.79	8
ATOM	12113	N	SER	D	14	99.373	75.341	30.194	1.00	80.98	7
ATOM	12114	CA	SER	D	14	100.496	75.339	29.266	1.00	81.06	6
ATOM	12115	CB	SER	D	14	101.688	74.592	29.883	1.00	83.26	6
ATOM	12116	OG	SER	D	14	101.903	74.936	31.246	1.00	85.20	8
ATOM	12117	C	SER	D	14	100.054	74.615	28.002	1.00	81.18	6
ATOM	12118	O	SER	D	14	99.109	73.829	28.032	1.00	81.33	8
ATOM	12119	N	PRO	D	15	100.731	74.865	26.869	1.00	82.84	7
ATOM	12120	CD	PRO	D	15	102.017	75.557	26.673	1.00	117.32	6
ATOM	12121	CA	PRO	D	15	100.323	74.172	25.645	1.00	82.29	6
ATOM	12122	CB	PRO	D	15	101.270	74.739	24.600	1.00	116.72	6
ATOM	12123	CG	PRO	D	15	102.531	74.920	25.395	1.00	117.28	6
ATOM	12124	C	PRO	D	15	100.555	72.695	25.893	1.00	81.74	6
ATOM	12125	O	PRO	D	15	99.982	71.840	25.232	1.00	82.23	8
ATOM	12126	N	ALA	D	16	101.416	72.420	26.865	1.00	74.76	7
ATOM	12127	CA	ALA	D	16	101.736	71.060	27.251	1.00	74.09	6
ATOM	12128	CB	ALA	D	16	103.043	71.029	28.043	1.00	76.33	6
ATOM	12129	C	ALA	D	16	100.587	70.539	28.106	1.00	73.29	6
ATOM	12130	O	ALA	D	16	100.286	69.342	28.101	1.00	73.99	8
ATOM	12131	N	ALA	D	17	99.943	71.442	28.843	1.00	45.49	7
ATOM	12132	CA	ALA	D	17	98.827	71.043	29.693	1.00	43.80	6
ATOM	12133	CB	ALA	D	17	98.356	72.206	30.574	1.00	27.07	6
ATOM	12134	C	ALA	D	17	97.710	70.588	28.786	1.00	43.56	6
ATOM	12135	O	ALA	D	17	97.199	69.487	28.951	1.00	43.42	8
ATOM	12136	N	ILE	D	18	97.347	71.433	27.819	1.00	41.01	7
ATOM	12137	CA	ILE	D	18	96.284	71.117	26.865	1.00	42.69	6
ATOM	12138	CB	ILE	D	18	96.308	72.111	25.663	1.00	45.88	6
ATOM	12139	CG2	ILE	D	18	95.676	71.494	24.440	1.00	46.21	6
ATOM	12140	CG1	ILE	D	18	95.582	73.411	26.033	1.00	45.53	6
ATOM	12141	CD1	ILE	D	18	96.333	74.321	26.988	1.00	43.91	6
ATOM	12142	C	ILE	D	18	96.440	69.674	26.368	1.00	44.77	6
ATOM	12143	O	ILE	D	18	95.489	68.885	26.413	1.00	44.47	8

217

ATOM	12144	N	ARG	D	19	97.651	69.337	25.923	1.00	69.82	7
ATOM	12145	CA	ARG	D	19	97.964	68.002	25.417	1.00	72.40	6
ATOM	12146	CB	ARG	D	19	99.464	67.866	25.129	1.00	92.42	6
ATOM	12147	CG	ARG	D	19	100.022	68.906	24.162	1.00	91.60	6
ATOM	12148	CD	ARG	D	19	101.551	68.848	24.057	1.00	90.18	6
ATOM	12149	NE	ARG	D	19	102.100	70.047	23.422	1.00	89.74	7
ATOM	12150	CZ	ARG	D	19	101.877	70.402	22.159	1.00	90.69	6
ATOM	12151	NH1	ARG	D	19	101.116	69.647	21.377	1.00	91.13	7
ATOM	12152	NH2	ARG	D	19	102.400	71.526	21.678	1.00	91.04	7
ATOM	12153	C	ARG	D	19	97.573	66.973	26.452	1.00	75.35	6
ATOM	12154	O	ARG	D	19	97.132	65.881	26.106	1.00	76.51	8
ATOM	12155	N	ALA	D	20	97.735	67.333	27.723	1.00	82.12	7
ATOM	12156	CA	ALA	D	20	97.413	66.438	28.832	1.00	86.47	6
ATOM	12157	CB	ALA	D	20	97.652	67.145	30.167	1.00	86.23	6
ATOM	12158	C	ALA	D	20	95.988	65.896	28.771	1.00	89.87	6
ATOM	12159	O	ALA	D	20	95.790	64.681	28.654	1.00	89.90	8
ATOM	12160	N	TRP	D	21	95.001	66.790	28.849	1.00	96.75	7
ATOM	12161	CA	TRP	D	21	93.604	66.367	28.805	1.00	100.95	6
ATOM	12162	CB	TRP	D	21	92.665	67.406	29.431	1.00	153.88	6
ATOM	12163	CG	TRP	D	21	93.301	68.494	30.227	1.00	155.88	6
ATOM	12164	CD2	TRP	D	21	93.258	69.891	29.931	1.00	157.07	6
ATOM	12165	CE2	TRP	D	21	93.935	70.561	30.971	1.00	158.45	6
ATOM	12166	CE3	TRP	D	21	92.710	70.644	28.883	1.00	156.76	6
ATOM	12167	CD1	TRP	D	21	93.986	68.371	31.401	1.00	157.18	6
ATOM	12168	NE1	TRP	D	21	94.369	69.610	31.857	1.00	158.44	7
ATOM	12169	CZ2	TRP	D	21	94.078	71.952	30.996	1.00	159.35	6
ATOM	12170	CZ3	TRP	D	21	92.853	72.027	28.908	1.00	157.43	6
ATOM	12171	CH2	TRP	D	21	93.532	72.666	29.958	1.00	158.88	6
ATOM	12172	C	TRP	D	21	93.140	66.123	27.379	1.00	103.62	6
ATOM	12173	O	TRP	D	21	92.388	65.187	27.115	1.00	104.42	8
ATOM	12174	N	ALA	D	22	93.585	66.980	26.467	1.00	208.87	7
ATOM	12175	CA	ALA	D	22	93.211	66.885	25.063	1.00	208.87	6
ATOM	12176	CB	ALA	D	22	94.115	67.773	24.242	1.00	126.20	6
ATOM	12177	C	ALA	D	22	93.233	65.456	24.518	1.00	208.87	6
ATOM	12178	O	ALA	D	22	92.762	65.197	23.409	1.00	208.87	8
ATOM	12179	N	ALA	D	23	93.781	64.531	25.297	1.00	191.58	7
ATOM	12180	CA	ALA	D	23	93.847	63.132	24.897	1.00	193.09	6
ATOM	12181	CB	ALA	D	23	92.431	62.549	24.795	1.00	74.47	6
ATOM	12182	C	ALA	D	23	94.586	62.946	23.578	1.00	194.46	6
ATOM	12183	O	ALA	D	23	94.602	61.846	23.029	1.00	195.08	8
ATOM	12184	N	GLY	D	24	95.193	64.021	23.076	1.00	208.87	7
ATOM	12185	CA	GLY	D	24	95.935	63.960	21.824	1.00	208.87	6
ATOM	12186	C	GLY	D	24	95.422	62.924	20.842	1.00	208.87	6
ATOM	12187	O	GLY	D	24	96.177	62.076	20.355	1.00	208.87	8
ATOM	12188	N	ALA	D	25	94.129	62.997	20.546	1.00	208.87	7
ATOM	12189	CA	ALA	D	25	93.505	62.053	19.634	1.00	208.87	6
ATOM	12190	CB	ALA	D	25	92.338	61.368	20.326	1.00	128.06	6
ATOM	12191	C	ALA	D	25	93.025	62.712	18.352	1.00	208.87	6
ATOM	12192	O	ALA	D	25	92.908	62.054	17.318	1.00	208.87	8
ATOM	12193	N	ALA	D	26	92.747	64.009	18.419	1.00	180.25	7
ATOM	12194	CA	ALA	D	26	92.260	64.726	17.249	1.00	180.10	6
ATOM	12195	CB	ALA	D	26	90.986	65.473	17.587	1.00	89.62	6
ATOM	12196	C	ALA	D	26	93.264	65.694	16.664	1.00	180.34	6
ATOM	12197	O	ALA	D	26	93.477	66.777	17.206	1.00	180.69	8
ATOM	12198	N	GLU	D	27	93.877	65.305	15.551	1.00	208.87	7
ATOM	12199	CA	GLU	D	27	94.825	66.180	14.879	1.00	208.87	6

218

```
ATOM   12200   CB    GLU  D  27      95.582   65.432   13.777   1.00183.77      6
ATOM   12201   CG    GLU  D  27      96.682   66.265   13.127   1.00184.01      6
ATOM   12202   CD    GLU  D  27      97.155   65.703   11.798   1.00184.16      6
ATOM   12203   OE1   GLU  D  27      97.663   64.563   11.769   1.00184.40      8
ATOM   12204   OE2   GLU  D  27      97.016   66.411   10.777   1.00184.01      8
ATOM   12205   C     GLU  D  27      93.926   67.241   14.260   1.00208.87      6
ATOM   12206   O     GLU  D  27      94.363   68.064   13.452   1.00208.87      8
ATOM   12207   N     ALA  D  28      92.656   67.187   14.661   1.00139.10      7
ATOM   12208   CA    ALA  D  28      91.616   68.098   14.206   1.00138.27      6
ATOM   12209   CB    ALA  D  28      92.159   69.519   14.113   1.00192.29      6
ATOM   12210   C     ALA  D  28      91.076   67.649   12.859   1.00137.57      6
ATOM   12211   O     ALA  D  28      90.008   68.088   12.438   1.00137.17      8
ATOM   12212   N     ALA  D  29      91.822   66.767   12.197   1.00141.79      7
ATOM   12213   CA    ALA  D  29      91.445   66.241   10.889   1.00140.97      6
ATOM   12214   CB    ALA  D  29      92.200   64.940   10.619   1.00 83.12      6
ATOM   12215   C     ALA  D  29      89.939   66.014   10.771   1.00140.41      6
ATOM   12216   O     ALA  D  29      89.433   64.938   11.100   1.00140.48      8
ATOM   12217   N     ALA  D  30      89.228   67.038   10.301   1.00111.24      7
ATOM   12218   CA    ALA  D  30      87.780   66.963   10.136   1.00110.84      6
ATOM   12219   CB    ALA  D  30      87.103   66.857   11.496   1.00123.74      6
ATOM   12220   C     ALA  D  30      87.212   68.153    9.370   1.00110.87      6
ATOM   12221   O     ALA  D  30      87.906   69.136    9.108   1.00110.89      8
ATOM   12222   N     ALA  D  31      85.936   68.051    9.018   1.00177.41      7
ATOM   12223   CA    ALA  D  31      85.248   69.102    8.283   1.00177.79      6
ATOM   12224   CB    ALA  D  31      85.386   68.870    6.785   1.00208.87      6
ATOM   12225   C     ALA  D  31      83.779   69.110    8.677   1.00178.04      6
ATOM   12226   O     ALA  D  31      83.409   68.308    9.560   1.00177.79      8
ATOM   12227   OXT   ALA  D  31      83.019   69.916    8.102   1.00208.87      8
ATOM   12228   CB    ALA  E  69      80.302   61.345    2.995   1.00182.41      6
ATOM   12229   C     ALA  E  69      79.572   61.683    5.364   1.00208.52      6
ATOM   12230   O     ALA  E  69      78.367   61.590    5.600   1.00208.79      8
ATOM   12231   N     ALA  E  69      79.514   59.422    4.332   1.00208.62      7
ATOM   12232   CA    ALA  E  69      80.245   60.721    4.389   1.00208.78      6
ATOM   12233   N     ALA  E  70      80.368   62.594    5.927   1.00208.87      7
ATOM   12234   CA    ALA  E  70      79.908   63.616    6.875   1.00208.87      6
ATOM   12235   CB    ALA  E  70      78.485   64.075    6.521   1.00107.45      6
ATOM   12236   C     ALA  E  70      79.978   63.222    8.354   1.00208.87      6
ATOM   12237   O     ALA  E  70      80.018   64.093    9.224   1.00208.87      8
ATOM   12238   N     ALA  E  71      79.995   61.923    8.646   1.00143.28      7
ATOM   12239   CA    ALA  E  71      80.070   61.471   10.035   1.00141.93      6
ATOM   12240   CB    ALA  E  71      79.653   60.015   10.143   1.00107.52      6
ATOM   12241   C     ALA  E  71      81.487   61.646   10.553   1.00141.34      6
ATOM   12242   O     ALA  E  71      81.786   61.303   11.695   1.00141.79      8
ATOM   12243   N     ALA  E  72      82.353   62.164    9.685   1.00 64.01      7
ATOM   12244   CA    ALA  E  72      83.751   62.429   10.004   1.00 63.37      6
ATOM   12245   CB    ALA  E  72      83.839   63.257   11.280   1.00143.16      6
ATOM   12246   C     ALA  E  72      84.698   61.229   10.108   1.00 63.18      6
ATOM   12247   O     ALA  E  72      84.348   60.154   10.601   1.00 62.80      8
ATOM   12248   N     ALA  E  73      85.915   61.453    9.628   1.00142.28      7
ATOM   12249   CA    ALA  E  73      86.979   60.463    9.659   1.00142.92      6
ATOM   12250   CB    ALA  E  73      87.570   60.284    8.267   1.00109.50      6
ATOM   12251   C     ALA  E  73      88.011   61.064   10.603   1.00143.50      6
ATOM   12252   O     ALA  E  73      88.364   62.238   10.468   1.00144.20      8
ATOM   12253   N     ALA  E  74      88.497   60.275   11.557   1.00 97.91      7
ATOM   12254   CA    ALA  E  74      89.461   60.793   12.523   1.00 98.24      6
ATOM   12255   CB    ALA  E  74      90.786   61.098   11.839   1.00175.06      6
```

```
ATOM    12256  C    ALA E  74        88.848  62.070  13.101  1.00 98.48      6
ATOM    12257  O    ALA E  74        89.434  63.153  13.029  1.00 98.61      8
ATOM    12258  N    ALA E  75        87.643  61.923  13.653  1.00172.01      7
ATOM    12259  CA   ALA E  75        86.902  63.032  14.249  1.00172.44      6
ATOM    12260  CB   ALA E  75        86.783  64.175  13.246  1.00 96.09      6
ATOM    12261  C    ALA E  75        85.509  62.579  14.685  1.00172.83      6
ATOM    12262  O    ALA E  75        85.037  61.516  14.281  1.00172.95      8
ATOM    12263  N    ALA E  76        84.866  63.397  15.515  1.00 85.70      7
ATOM    12264  CA   ALA E  76        83.520  63.136  16.019  1.00 85.45      6
ATOM    12265  CB   ALA E  76        82.505  63.323  14.902  1.00203.01      6
ATOM    12266  C    ALA E  76        83.344  61.763  16.652  1.00 85.07      6
ATOM    12267  O    ALA E  76        82.236  61.400  17.041  1.00 84.31      8
ATOM    12268  N    ALA E  77        84.433  61.004  16.755  1.00121.96      7
ATOM    12269  CA   ALA E  77        84.394  59.664  17.341  1.00122.45      6
ATOM    12270  CB   ALA E  77        83.399  58.797  16.587  1.00143.70      6
ATOM    12271  C    ALA E  77        85.770  59.011  17.317  1.00122.59      6
ATOM    12272  O    ALA E  77        86.629  59.392  16.522  1.00122.76      8
ATOM    12273  N    ALA E  78        85.957  58.019  18.187  1.00143.65      7
ATOM    12274  CA   ALA E  78        87.214  57.286  18.314  1.00143.63      6
ATOM    12275  CB   ALA E  78        87.736  56.879  16.938  1.00174.88      6
ATOM    12276  C    ALA E  78        88.255  58.129  19.053  1.00143.46      6
ATOM    12277  O    ALA E  78        89.155  57.594  19.704  1.00143.75      8
ATOM    12278  N    ALA E  79        88.115  59.450  18.949  1.00120.63      7
ATOM    12279  CA   ALA E  79        89.011  60.405  19.607  1.00120.05      6
ATOM    12280  CB   ALA E  79        89.515  61.440  18.592  1.00107.86      6
ATOM    12281  C    ALA E  79        88.253  61.106  20.738  1.00119.78      6
ATOM    12282  O    ALA E  79        88.852  61.741  21.604  1.00119.41      8
ATOM    12283  N    ALA E  80        86.930  60.978  20.703  1.00149.30      7
ATOM    12284  CA   ALA E  80        86.030  61.572  21.685  1.00149.38      6
ATOM    12285  CB   ALA E  80        85.506  62.924  21.152  1.00 48.26      6
ATOM    12286  C    ALA E  80        84.870  60.587  21.875  1.00149.79      6
ATOM    12287  O    ALA E  80        83.705  60.961  21.751  1.00150.37      8
ATOM    12288  N    ALA E  81        85.210  59.333  22.173  1.00175.59      7
ATOM    12289  CA   ALA E  81        84.242  58.248  22.355  1.00174.88      6
ATOM    12290  CB   ALA E  81        83.090  58.682  23.232  1.00102.84      6
ATOM    12291  C    ALA E  81        83.710  57.826  21.002  1.00174.79      6
ATOM    12292  O    ALA E  81        84.461  57.772  20.030  1.00175.14      8
ATOM    12293  N    ALA E  82        82.411  57.541  20.932  1.00208.39      7
ATOM    12294  CA   ALA E  82        81.819  57.143  19.662  1.00208.06      6
ATOM    12295  CB   ALA E  82        82.598  55.974  19.083  1.00140.64      6
ATOM    12296  C    ALA E  82        80.336  56.795  19.683  1.00207.58      6
ATOM    12297  O    ALA E  82        79.872  56.028  20.522  1.00206.90      8
ATOM    12298  N    ALA E  83        79.609  57.366  18.727  1.00128.47      7
ATOM    12299  CA   ALA E  83        78.181  57.123  18.526  1.00128.25      6
ATOM    12300  CB   ALA E  83        78.002  55.788  17.802  1.00139.10      6
ATOM    12301  C    ALA E  83        77.237  57.183  19.734  1.00128.40      6
ATOM    12302  O    ALA E  83        76.021  57.207  19.553  1.00128.17      8
ATOM    12303  N    ALA E  84        77.774  57.199  20.951  1.00208.87      7
ATOM    12304  CA   ALA E  84        76.942  57.266  22.152  1.00208.87      6
ATOM    12305  CB   ALA E  84        75.840  56.175  22.099  1.00 40.04      6
ATOM    12306  C    ALA E  84        77.761  57.143  23.446  1.00208.87      6
ATOM    12307  O    ALA E  84        79.000  57.130  23.411  1.00208.87      8
ATOM    12308  N    ALA E  85        77.035  57.048  24.567  1.00144.51      7
ATOM    12309  CA   ALA E  85        77.561  56.942  25.941  1.00143.76      6
ATOM    12310  CB   ALA E  85        78.902  56.191  25.964  1.00135.85      6
ATOM    12311  C    ALA E  85        77.726  58.355  26.502  1.00143.45      6
```

```
ATOM   12312   O    ALA E   85      77.879   59.302   25.732   1.00143.42      8
ATOM   12313   N    ALA E   86      77.675   58.495   27.827   1.00208.87      7
ATOM   12314   CA   ALA E   86      77.817   59.792   28.498   1.00208.87      6
ATOM   12315   CB   ALA E   86      78.391   59.596   29.899   1.00116.43      6
ATOM   12316   C    ALA E   86      78.679   60.793   27.736   1.00208.87      6
ATOM   12317   O    ALA E   86      78.210   61.463   26.816   1.00208.87      8
ATOM   12318   N    ALA E   87      79.947   60.901   28.115   1.00117.66      7
ATOM   12319   CA   ALA E   87      80.820   61.845   27.434   1.00115.28      6
ATOM   12320   CB   ALA E   87      80.333   63.261   27.681   1.00199.23      6
ATOM   12321   C    ALA E   87      82.277   61.719   27.842   1.00113.56      6
ATOM   12322   O    ALA E   87      82.892   60.678   27.633   1.00113.09      8
ATOM   12323   N    ALA E   88      82.820   62.781   28.432   1.00  77.12      7
ATOM   12324   CA   ALA E   88      84.219   62.806   28.849   1.00  74.14      6
ATOM   12325   CB   ALA E   88      84.552   61.595   29.713   1.00  49.92      6
ATOM   12326   C    ALA E   88      85.060   62.795   27.584   1.00  72.75      6
ATOM   12327   O    ALA E   88      84.512   62.787   26.486   1.00  72.56      8
ATOM   12328   N    ALA E   89      86.380   62.807   27.741   1.00101.01      7
ATOM   12329   CA   ALA E   89      87.295   62.813   26.603   1.00  99.71      6
ATOM   12330   CB   ALA E   89      86.644   62.084   25.421   1.00  13.87      6
ATOM   12331   C    ALA E   89      87.612   64.276   26.247   1.00  98.29      6
ATOM   12332   O    ALA E   89      87.189   65.177   26.963   1.00  99.51      8
ATOM   12333   N    ALA E   90      88.352   64.526   25.165   1.00  50.46      7
ATOM   12334   CA   ALA E   90      88.661   65.904   24.771   1.00  46.80      6
ATOM   12335   CB   ALA E   90      89.499   66.568   25.856   1.00  36.40      6
ATOM   12336   C    ALA E   90      89.344   66.039   23.403   1.00  44.15      6
ATOM   12337   O    ALA E   90      89.836   65.066   22.854   1.00  43.39      8
ATOM   12338   N    ALA E   91      89.370   67.251   22.854   1.00  67.98      7
ATOM   12339   CA   ALA E   91      89.980   67.489   21.544   1.00  66.57      6
ATOM   12340   CB   ALA E   91      89.032   68.300   20.698   1.00  35.47      6
ATOM   12341   C    ALA E   91      91.343   68.191   21.645   1.00  65.25      6
ATOM   12342   O    ALA E   91      91.499   69.115   22.440   1.00  64.94      8
ATOM   12343   N    ALA E   92      92.315   67.777   20.825   1.00  58.67      7
ATOM   12344   CA   ALA E   92      93.670   68.348   20.887   1.00  57.66      6
ATOM   12345   CB   ALA E   92      94.676   67.247   21.312   1.00  13.87      6
ATOM   12346   C    ALA E   92      94.239   69.071   19.669   1.00  57.31      6
ATOM   12347   O    ALA E   92      95.452   68.999   19.460   1.00  57.49      8
ATOM   12348   N    ALA E   93      93.415   69.774   18.889   1.00  47.40      7
ATOM   12349   CA   ALA E   93      93.925   70.479   17.697   1.00  46.65      6
ATOM   12350   CB   ALA E   93      92.923   71.557   17.234   1.00  13.87      6
ATOM   12351   C    ALA E   93      95.302   71.101   17.980   1.00  46.65      6
ATOM   12352   O    ALA E   93      95.393   72.209   18.513   1.00  46.91      8
ATOM   12353   N    ALA E   94      96.359   70.367   17.611   1.00  34.26      7
ATOM   12354   CA   ALA E   94      97.763   70.756   17.844   1.00  35.14      6
ATOM   12355   CB   ALA E   94      98.699   69.539   17.598   1.00  36.50      6
ATOM   12356   C    ALA E   94      98.287   71.979   17.089   1.00  36.41      6
ATOM   12357   O    ALA E   94      99.498   72.190   17.012   1.00  34.77      8
ATOM   12358   N    ALA E   95      97.367   72.788   16.566   1.00101.08      7
ATOM   12359   CA   ALA E   95      97.703   74.011   15.838   1.00104.48      6
ATOM   12360   CB   ALA E   95      98.002   75.154   16.844   1.00  54.02      6
ATOM   12361   C    ALA E   95      98.897   73.782   14.917   1.00106.91      6
ATOM   12362   O    ALA E   95      99.141   72.653   14.491   1.00108.92      8
ATOM   12363   N    ALA E   96      99.623   74.854   14.601   1.00105.52      7
ATOM   12364   CA   ALA E   96     100.809   74.764   13.748   1.00107.06      6
ATOM   12365   CB   ALA E   96     100.450   74.181   12.398   1.00  13.87      6
ATOM   12366   C    ALA E   96     101.514   76.099   13.553   1.00108.62      6
ATOM   12367   O    ALA E   96     101.116   76.910   12.715   1.00108.93      8
```

221

```
ATOM  12368  N   ALA E  97    102.567  76.309  14.336  1.00128.48    7
ATOM  12369  CA  ALA E  97    103.372  77.521  14.266  1.00129.82    6
ATOM  12370  CB  ALA E  97    104.147  77.543  12.958  1.00134.57    6
ATOM  12371  C   ALA E  97    102.559  78.802  14.406  1.00130.98    6
ATOM  12372  O   ALA E  97    102.624  79.685  13.551  1.00130.80    8
ATOM  12373  N   ALA E  98    101.802  78.907  15.493  1.00116.28    7
ATOM  12374  CA  ALA E  98    100.989  80.091  15.727  1.00117.99    6
ATOM  12375  CB  ALA E  98     99.826  80.113  14.752  1.00 87.41    6
ATOM  12376  C   ALA E  98    100.481  80.186  17.164  1.00119.35    6
ATOM  12377  O   ALA E  98    100.957  79.471  18.050  1.00119.68    8
ATOM  12378  N   ALA E  99     99.517  81.081  17.381  1.00 92.06    7
ATOM  12379  CA  ALA E  99     98.921  81.312  18.700  1.00 93.57    6
ATOM  12380  CB  ALA E  99     99.965  81.858  19.655  1.00165.12    6
ATOM  12381  C   ALA E  99     97.754  82.294  18.600  1.00 94.85    6
ATOM  12382  O   ALA E  99     97.259  82.568  17.510  1.00 95.31    8
ATOM  12383  N   ALA E 100     97.323  82.839  19.734  1.00113.85    7
ATOM  12384  CA  ALA E 100     96.203  83.772  19.730  1.00114.80    6
ATOM  12385  CB  ALA E 100     94.925  83.021  19.433  1.00 55.44    6
ATOM  12386  C   ALA E 100     96.073  84.519  21.048  1.00115.99    6
ATOM  12387  O   ALA E 100     95.838  83.916  22.095  1.00116.63    8
ATOM  12388  N   ALA E 101     96.197  85.840  20.985  1.00208.87    7
ATOM  12389  CA  ALA E 101     96.120  86.677  22.178  1.00208.87    6
ATOM  12390  CB  ALA E 101     97.103  87.837  22.044  1.00152.73    6
ATOM  12391  C   ALA E 101     94.726  87.215  22.520  1.00208.87    6
ATOM  12392  O   ALA E 101     94.597  88.366  22.943  1.00208.87    8
ATOM  12393  N   ALA E 102     93.690  86.394  22.352  1.00125.03    7
ATOM  12394  CA  ALA E 102     92.326  86.833  22.657  1.00124.04    6
ATOM  12395  CB  ALA E 102     91.348  86.225  21.670  1.00 79.18    6
ATOM  12396  C   ALA E 102     91.963  86.424  24.076  1.00123.79    6
ATOM  12397  O   ALA E 102     91.284  87.154  24.803  1.00123.54    8
ATOM  12398  N   ALA E 103     92.427  85.242  24.459  1.00154.47    7
ATOM  12399  CA  ALA E 103     92.178  84.717  25.787  1.00153.98    6
ATOM  12400  CB  ALA E 103     92.455  83.211  25.802  1.00111.96    6
ATOM  12401  C   ALA E 103     93.085  85.435  26.788  1.00153.34    6
ATOM  12402  O   ALA E 103     93.701  84.783  27.634  1.00153.16    8
ATOM  12403  N   ALA E 104     93.159  86.768  26.679  1.00 56.57    7
ATOM  12404  CA  ALA E 104     93.991  87.622  27.547  1.00 55.34    6
ATOM  12405  CB  ALA E 104     94.660  86.778  28.641  1.00 22.37    6
ATOM  12406  C   ALA E 104     95.065  88.363  26.740  1.00 55.07    6
ATOM  12407  O   ALA E 104     96.090  87.788  26.422  1.00 55.23    8
ATOM  12408  N   ALA E 105     94.841  89.630  26.400  1.00115.74    7
ATOM  12409  CA  ALA E 105     95.837  90.379  25.624  1.00114.78    6
ATOM  12410  CB  ALA E 105     95.210  90.924  24.313  1.00 29.18    6
ATOM  12411  C   ALA E 105     96.480  91.522  26.416  1.00113.87    6
ATOM  12412  O   ALA E 105     97.668  91.810  26.256  1.00113.50    8
ATOM  12413  N   ALA E 106     95.695  92.170  27.270  1.00136.29    7
ATOM  12414  CA  ALA E 106     96.192  93.281  28.078  1.00135.70    6
ATOM  12415  CB  ALA E 106     95.059  93.916  28.866  1.00139.76    6
ATOM  12416  C   ALA E 106     97.267  92.804  29.028  1.00134.84    6
ATOM  12417  O   ALA E 106     98.326  93.412  29.113  1.00135.36    8
ATOM  12418  N   ALA E 107     96.989  91.727  29.754  1.00121.92    7
ATOM  12419  CA  ALA E 107     97.972  91.191  30.681  1.00121.18    6
ATOM  12420  CB  ALA E 107     97.578  89.775  31.122  1.00103.17    6
ATOM  12421  C   ALA E 107     99.296  91.180  29.921  1.00120.64    6
ATOM  12422  O   ALA E 107    100.343  91.551  30.457  1.00120.71    8
ATOM  12423  N   ALA E 108     99.235  90.781  28.654  1.00 66.90    7
```

222

```
ATOM  12424  CA   ALA E 108      100.422  90.746  27.811  1.00 66.00      6
ATOM  12425  CB   ALA E 108      100.098  90.085  26.459  1.00 29.40      6
ATOM  12426  C    ALA E 108      100.864  92.192  27.617  1.00 65.63      6
ATOM  12427  O    ALA E 108      102.018  92.534  27.857  1.00 65.91      8
ATOM  12428  N    ALA E 109       99.923  93.037  27.208  1.00 94.14      7
ATOM  12429  CA   ALA E 109      100.189  94.455  26.982  1.00 94.04      6
ATOM  12430  CB   ALA E 109       98.916  95.142  26.493  1.00157.23      6
ATOM  12431  C    ALA E 109      100.733  95.176  28.227  1.00 93.66      6
ATOM  12432  O    ALA E 109      101.295  96.271  28.126  1.00 93.28      8
ATOM  12433  N    ALA E 110      100.557  94.563  29.396  1.00 88.93      7
ATOM  12434  CA   ALA E 110      101.036  95.142  30.647  1.00 87.68      6
ATOM  12435  CB   ALA E 110      100.083  94.792  31.804  1.00 13.87      6
ATOM  12436  C    ALA E 110      102.438  94.617  30.935  1.00 87.36      6
ATOM  12437  O    ALA E 110      103.388  95.395  31.003  1.00 87.91      8
ATOM  12438  N    ALA E 111      102.565  93.298  31.082  1.00 71.71      7
ATOM  12439  CA   ALA E 111      103.855  92.667  31.363  1.00 72.01      6
ATOM  12440  CB   ALA E 111      103.666  91.140  31.585  1.00 13.87      6
ATOM  12441  C    ALA E 111      104.903  92.917  30.264  1.00 72.29      6
ATOM  12442  O    ALA E 111      105.839  92.128  30.108  1.00 73.03      8
ATOM  12443  N    ALA E 112      104.756  94.012  29.515  1.00 96.42      7
ATOM  12444  CA   ALA E 112      105.695  94.347  28.440  1.00 95.42      6
ATOM  12445  CB   ALA E 112      105.906  93.120  27.534  1.00 41.44      6
ATOM  12446  C    ALA E 112      105.256  95.549  27.593  1.00 94.77      6
ATOM  12447  O    ALA E 112      105.085  95.423  26.381  1.00 94.39      8
ATOM  12448  N    ALA E 113      105.098  96.701  28.247  1.00 98.10      7
ATOM  12449  CA   ALA E 113      104.679  97.981  27.644  1.00 98.34      6
ATOM  12450  CB   ALA E 113      105.786  99.051  27.876  1.00 13.87      6
ATOM  12451  C    ALA E 113      104.238  98.006  26.169  1.00 99.05      6
ATOM  12452  O    ALA E 113      104.471  98.995  25.469  1.00 99.32      8
ATOM  12453  N    ALA E 114      103.576  96.944  25.711  1.00146.06      7
ATOM  12454  CA   ALA E 114      103.117  96.853  24.323  1.00146.52      6
ATOM  12455  CB   ALA E 114      103.658  95.554  23.671  1.00 49.17      6
ATOM  12456  C    ALA E 114      101.587  96.904  24.229  1.00146.76      6
ATOM  12457  O    ALA E 114      100.913  95.875  24.305  1.00147.41      8
ATOM  12458  N    ALA E 115      101.048  98.108  24.057  1.00 57.90      7
ATOM  12459  CA   ALA E 115       99.601  98.305  23.959  1.00 56.95      6
ATOM  12460  CB   ALA E 115       99.114  99.139  25.143  1.00151.32      6
ATOM  12461  C    ALA E 115       99.193  98.976  22.646  1.00 56.60      6
ATOM  12462  O    ALA E 115       99.868  99.892  22.170  1.00 55.48      8
ATOM  12463  N    ALA E 116       98.078  98.532  22.071  1.00112.70      7
ATOM  12464  CA   ALA E 116       97.609  99.083  20.803  1.00113.68      6
ATOM  12465  CB   ALA E 116       97.489 100.606  20.886  1.00 45.97      6
ATOM  12466  C    ALA E 116       98.645  98.690  19.755  1.00114.23      6
ATOM  12467  O    ALA E 116       98.450  98.875  18.551  1.00114.46      8
ATOM  12468  N    ALA E 117       99.753  98.141  20.244  1.00118.77      7
ATOM  12469  CA   ALA E 117      100.852  97.691  19.408  1.00118.20      6
ATOM  12470  CB   ALA E 117      102.183  98.081  20.044  1.00100.22      6
ATOM  12471  C    ALA E 117      100.751  96.177  19.274  1.00117.69      6
ATOM  12472  O    ALA E 117      100.983  95.627  18.199  1.00118.09      8
ATOM  12473  N    ALA E 118      100.401  95.507  20.370  1.00121.35      7
ATOM  12474  CA   ALA E 118      100.255  94.054  20.360  1.00120.31      6
ATOM  12475  CB   ALA E 118       99.940  93.534  21.765  1.00 41.23      6
ATOM  12476  C    ALA E 118       99.116  93.735  19.403  1.00119.61      6
ATOM  12477  O    ALA E 118       98.784  92.575  19.163  1.00119.51      8
ATOM  12478  N    ALA E 119       98.518  94.791  18.866  1.00131.56      7
ATOM  12479  CA   ALA E 119       97.438  94.658  17.910  1.00130.77      6
```

```
ATOM  12480  CB  ALA E 119      96.497  95.832  18.028  1.00 93.87    6
ATOM  12481  C   ALA E 119      98.082  94.631  16.531  1.00129.80    6
ATOM  12482  O   ALA E 119      97.480  94.193  15.553  1.00130.43    8
ATOM  12483  N   ALA E 120      99.319  95.108  16.467  1.00 75.06    7
ATOM  12484  CA  ALA E 120     100.072  95.135  15.222  1.00 72.98    6
ATOM  12485  CB  ALA E 120     101.078  96.281  15.257  1.00 83.58    6
ATOM  12486  C   ALA E 120     100.798  93.802  15.023  1.00 71.14    6
ATOM  12487  O   ALA E 120     100.532  93.069  14.069  1.00 70.20    8
ATOM  12488  N   ALA E 121     101.704  93.501  15.948  1.00 49.75    7
ATOM  12489  CA  ALA E 121     102.511  92.280  15.924  1.00 49.46    6
ATOM  12490  CB  ALA E 121     103.551  92.344  17.048  1.00 59.18    6
ATOM  12491  C   ALA E 121     101.747  90.948  16.004  1.00 48.63    6
ATOM  12492  O   ALA E 121     102.121  89.973  15.343  1.00 48.09    8
ATOM  12493  N   ALA E 122     100.693  90.900  16.816  1.00 71.02    7
ATOM  12494  CA  ALA E 122      99.915  89.676  16.974  1.00 70.10    6
ATOM  12495  CB  ALA E 122      98.935  89.802  18.163  1.00 13.87    6
ATOM  12496  C   ALA E 122      99.169  89.333  15.690  1.00 69.94    6
ATOM  12497  O   ALA E 122      98.980  88.160  15.370  1.00 70.05    8
ATOM  12498  N   ALA E 123      98.760  90.349  14.940  1.00178.16    7
ATOM  12499  CA  ALA E 123      98.043  90.097  13.696  1.00178.21    6
ATOM  12500  CB  ALA E 123      97.028  91.221  13.429  1.00 13.87    6
ATOM  12501  C   ALA E 123      98.992  89.926  12.502  1.00178.38    6
ATOM  12502  O   ALA E 123      98.566  90.007  11.346  1.00179.27    8
ATOM  12503  N   ALA E 124     100.273  89.683  12.785  1.00 30.70    7
ATOM  12504  CA  ALA E 124     101.266  89.480  11.734  1.00 29.80    6
ATOM  12505  CB  ALA E 124     101.058  88.091  11.095  1.00 13.87    6
ATOM  12506  C   ALA E 124     101.217  90.579  10.660  1.00 30.66    6
ATOM  12507  O   ALA E 124     100.847  90.329   9.513  1.00 29.87    8
ATOM  12508  N   ALA E 125     101.602  91.797  11.039  1.00136.32    7
ATOM  12509  CA  ALA E 125     101.581  92.914  10.098  1.00137.92    6
ATOM  12510  CB  ALA E 125     100.135  93.207   9.683  1.00 64.13    6
ATOM  12511  C   ALA E 125     102.248  94.210  10.581  1.00138.86    6
ATOM  12512  O   ALA E 125     101.747  95.302  10.300  1.00139.25    8
ATOM  12513  N   ALA E 126     103.366  94.106  11.296  1.00 62.51    7
ATOM  12514  CA  ALA E 126     104.057  95.301  11.767  1.00 62.97    6
ATOM  12515  CB  ALA E 126     103.524  95.716  13.123  1.00 94.98    6
ATOM  12516  C   ALA E 126     105.552  95.075  11.851  1.00 64.15    6
ATOM  12517  O   ALA E 126     106.285  95.373  10.905  1.00 64.19    8
ATOM  12518  N   ALA E 127     105.992  94.550  12.993  1.00 93.46    7
ATOM  12519  CA  ALA E 127     107.404  94.270  13.257  1.00 94.94    6
ATOM  12520  CB  ALA E 127     108.266  95.415  12.763  1.00 17.72    6
ATOM  12521  C   ALA E 127     107.605  94.076  14.758  1.00 96.30    6
ATOM  12522  O   ALA E 127     107.633  95.046  15.523  1.00 96.29    8
ATOM  12523  N   ALA E 128     107.751  92.821  15.172  1.00 83.88    7
ATOM  12524  CA  ALA E 128     107.920  92.495  16.584  1.00 85.18    6
ATOM  12525  CB  ALA E 128     107.585  91.020  16.816  1.00113.19    6
ATOM  12526  C   ALA E 128     109.308  92.813  17.146  1.00 86.19    6
ATOM  12527  O   ALA E 128     109.421  93.502  18.163  1.00 87.00    8
ATOM  12528  N   ALA E 129     110.348  92.316  16.474  1.00 69.89    7
ATOM  12529  CA  ALA E 129     111.746  92.495  16.883  1.00 71.80    6
ATOM  12530  CB  ALA E 129     112.022  93.936  17.341  1.00 13.87    6
ATOM  12531  C   ALA E 129     112.066  91.520  17.998  1.00 73.44    6
ATOM  12532  O   ALA E 129     111.235  90.676  18.335  1.00 73.27    8
ATOM  12533  N   ALA E 130     113.266  91.642  18.558  1.00109.86    7
ATOM  12534  CA  ALA E 130     113.737  90.786  19.645  1.00112.83    6
ATOM  12535  CB  ALA E 130     112.946  89.482  19.706  1.00 70.66    6
```

224

```
ATOM  12536  C   ALA E 130    115.199  90.476  19.397  1.00115.36    6
ATOM  12537  O   ALA E 130    115.932  90.093  20.312  1.00116.61    8
ATOM  12538  N   ALA E 131    115.615  90.640  18.145  1.00208.87    7
ATOM  12539  CA  ALA E 131    116.989  90.379  17.751  1.00208.87    6
ATOM  12540  CB  ALA E 131    117.011  89.490  16.510  1.00139.43    6
ATOM  12541  C   ALA E 131    117.724  91.692  17.485  1.00208.87    6
ATOM  12542  O   ALA E 131    117.488  92.358  16.473  1.00208.87    8
ATOM  12543  N   ALA E 132    118.608  92.060  18.407  1.00160.35    7
ATOM  12544  CA  ALA E 132    119.386  93.289  18.292  1.00161.39    6
ATOM  12545  CB  ALA E 132    120.470  93.311  19.364  1.00126.25    6
ATOM  12546  C   ALA E 132    120.012  93.407  16.905  1.00162.45    6
ATOM  12547  O   ALA E 132    120.064  92.430  16.159  1.00162.81    8
ATOM  12548  N   ALA E 133    120.489  94.600  16.557  1.00148.54    7
ATOM  12549  CA  ALA E 133    121.100  94.798  15.244  1.00149.35    6
ATOM  12550  CB  ALA E 133    120.035  94.653  14.159  1.00137.78    6
ATOM  12551  C   ALA E 133    121.850  96.122  15.071  1.00149.95    6
ATOM  12552  O   ALA E 133    122.803  96.409  15.796  1.00150.94    8
ATOM  12553  N   ALA E 134    121.411  96.919  14.099  1.00 75.98    7
ATOM  12554  CA  ALA E 134    122.029  98.205  13.794  1.00 76.04    6
ATOM  12555  CB  ALA E 134    122.453  98.229  12.326  1.00130.28    6
ATOM  12556  C   ALA E 134    121.152  99.422  14.099  1.00 76.45    6
ATOM  12557  O   ALA E 134    120.927  99.759  15.265  1.00 75.74    8
ATOM  12558  N   ALA E 135    120.663 100.079  13.048  1.00136.30    7
ATOM  12559  CA  ALA E 135    119.827 101.266  13.211  1.00137.55    6
ATOM  12560  CB  ALA E 135    120.504 102.246  14.141  1.00 90.41    6
ATOM  12561  C   ALA E 135    119.547 101.947  11.877  1.00138.32    6
ATOM  12562  O   ALA E 135    120.384 101.929  10.973  1.00138.96    8
ATOM  12563  N   ALA E 136    118.370 102.561  11.773  1.00190.44    7
ATOM  12564  CA  ALA E 136    117.953 103.260  10.561  1.00191.59    6
ATOM  12565  CB  ALA E 136    116.494 102.945  10.255  1.00140.21    6
ATOM  12566  C   ALA E 136    118.140 104.768  10.690  1.00192.38    6
ATOM  12567  O   ALA E 136    117.752 105.528   9.799  1.00193.07    8
ATOM  12568  N   ALA E 137    118.728 105.189  11.808  1.00207.72    7
ATOM  12569  CA  ALA E 137    118.989 106.602  12.081  1.00207.46    6
ATOM  12570  CB  ALA E 137    117.691 107.408  12.028  1.00117.55    6
ATOM  12571  C   ALA E 137    119.656 106.785  13.444  1.00207.69    6
ATOM  12572  O   ALA E 137    120.737 107.364  13.542  1.00208.14    8
ATOM  12573  N   ALA E 138    119.006 106.291  14.492  1.00150.77    7
ATOM  12574  CA  ALA E 138    119.539 106.406  15.842  1.00150.79    6
ATOM  12575  CB  ALA E 138    118.421 106.738  16.809  1.00132.19    6
ATOM  12576  C   ALA E 138    120.241 105.125  16.270  1.00150.96    6
ATOM  12577  O   ALA E 138    121.458 105.009  16.150  1.00151.30    8
ATOM  12578  N   ALA E 139    119.473 104.167  16.776  1.00113.98    7
ATOM  12579  CA  ALA E 139    120.033 102.895  17.212  1.00113.98    6
ATOM  12580  CB  ALA E 139    120.454 102.982  18.681  1.00 93.02    6
ATOM  12581  C   ALA E 139    119.007 101.778  17.012  1.00114.55    6
ATOM  12582  O   ALA E 139    118.321 101.733  15.987  1.00114.68    8
ATOM  12583  N   ALA E 140    118.912 100.877  17.990  1.00208.87    7
ATOM  12584  CA  ALA E 140    117.963  99.763  17.944  1.00208.87    6
ATOM  12585  CB  ALA E 140    118.526  98.625  17.107  1.00 79.54    6
ATOM  12586  C   ALA E 140    117.646  99.268  19.355  1.00208.87    6
ATOM  12587  O   ALA E 140    118.520  99.234  20.221  1.00208.87    8
ATOM  12588  N   ALA E 141    116.395  98.878  19.580  1.00 83.09    7
ATOM  12589  CA  ALA E 141    115.965  98.391  20.888  1.00 83.09    6
ATOM  12590  CB  ALA E 141    115.448  99.555  21.730  1.00160.18    6
ATOM  12591  C   ALA E 141    114.884  97.310  20.768  1.00 83.22    6
```

225

```
ATOM   12592  O    ALA E 141      114.196  97.215  19.751  1.00 82.93      8
ATOM   12593  N    ALA E 142      114.731  96.503  21.814  1.00194.90      7
ATOM   12594  CA   ALA E 142      113.736  95.433  21.814  1.00194.98      6
ATOM   12595  CB   ALA E 142      113.997  94.476  22.968  1.00131.90      6
ATOM   12596  C    ALA E 142      112.318  95.983  21.900  1.00194.65      6
ATOM   12597  O    ALA E 142      111.654  95.855  22.931  1.00195.16      8
ATOM   12598  N    ALA E 143      111.863  96.590  20.806  1.00136.97      7
ATOM   12599  CA   ALA E 143      110.523  97.170  20.724  1.00136.69      6
ATOM   12600  CB   ALA E 143      110.267  98.061  21.932  1.00183.63      6
ATOM   12601  C    ALA E 143      110.322  97.972  19.437  1.00136.26      6
ATOM   12602  O    ALA E 143      109.233  97.972  18.866  1.00136.76      8
ATOM   12603  N    ALA E 144      111.377  98.661  19.003  1.00208.87      7
ATOM   12604  CA   ALA E 144      111.346  99.474  17.787  1.00208.87      6
ATOM   12605  CB   ALA E 144      112.786  99.817  17.342  1.00 78.71      6
ATOM   12606  C    ALA E 144      110.604  98.719  16.681  1.00208.87      6
ATOM   12607  O    ALA E 144      111.203  97.942  15.937  1.00208.87      8
ATOM   12608  N    ALA E 145      109.295  98.955  16.589  1.00138.23      7
ATOM   12609  CA   ALA E 145      108.446  98.296  15.598  1.00136.15      6
ATOM   12610  CB   ALA E 145      107.014  98.202  16.127  1.00141.89      6
ATOM   12611  C    ALA E 145      108.465  98.989  14.229  1.00134.71      6
ATOM   12612  O    ALA E 145      107.579  99.783  13.903  1.00134.55      8
ATOM   12613  N    ALA E 146      109.481  98.672  13.432  1.00160.11      7
ATOM   12614  CA   ALA E 146      109.628  99.241  12.099  1.00157.72      6
ATOM   12615  CB   ALA E 146      110.936  98.766  11.484  1.00 56.13      6
ATOM   12616  C    ALA E 146      108.446  98.808  11.236  1.00156.32      6
ATOM   12617  O    ALA E 146      107.686  97.928  11.628  1.00156.69      8
ATOM   12618  N    ALA E 147      108.289  99.422  10.066  1.00176.44      7
ATOM   12619  CA   ALA E 147      107.185  99.075   9.173  1.00174.35      6
ATOM   12620  CB   ALA E 147      106.884 100.234   8.225  1.00 13.87      6
ATOM   12621  C    ALA E 147      107.479  97.810   8.370  1.00172.71      6
ATOM   12622  O    ALA E 147      108.565  97.237   8.473  1.00173.54      8
ATOM   12623  N    ALA E 148      106.501  97.383   7.573  1.00146.02      7
ATOM   12624  CA   ALA E 148      106.631  96.188   6.743  1.00143.18      6
ATOM   12625  CB   ALA E 148      105.415  96.067   5.803  1.00 63.85      6
ATOM   12626  C    ALA E 148      107.923  96.224   5.929  1.00141.42      6
ATOM   12627  O    ALA E 148      108.558  95.193   5.703  1.00141.69      8
ATOM   12628  N    ALA E 149      108.306  97.424   5.505  1.00 90.34      7
ATOM   12629  CA   ALA E 149      109.508  97.626   4.706  1.00 87.62      6
ATOM   12630  CB   ALA E 149      109.302  98.810   3.763  1.00 63.96      6
ATOM   12631  C    ALA E 149      110.759  97.844   5.554  1.00 85.77      6
ATOM   12632  O    ALA E 149      111.758  97.152   5.367  1.00 85.86      8
ATOM   12633  N    ALA E 150      110.692  98.801   6.483  1.00 51.33      7
ATOM   12634  CA   ALA E 150      111.815  99.139   7.363  1.00 49.33      6
ATOM   12635  CB   ALA E 150      111.346 100.029   8.528  1.00 38.77      6
ATOM   12636  C    ALA E 150      112.512  97.893   7.891  1.00 48.52      6
ATOM   12637  O    ALA E 150      113.613  97.965   8.443  1.00 48.14      8
ATOM   12638  N    ALA E 151      111.860  96.749   7.733  1.00 73.27      7
ATOM   12639  CA   ALA E 151      112.454  95.495   8.140  1.00 72.54      6
ATOM   12640  CB   ALA E 151      111.391  94.444   8.316  1.00 39.74      6
ATOM   12641  C    ALA E 151      113.359  95.135   6.972  1.00 72.88      6
ATOM   12642  O    ALA E 151      114.579  95.094   7.110  1.00 73.09      8
ATOM   12643  N    ALA E 152      112.747  94.897   5.814  1.00 99.11      7
ATOM   12644  CA   ALA E 152      113.487  94.550   4.606  1.00100.05      6
ATOM   12645  CB   ALA E 152      112.624  94.792   3.379  1.00130.30      6
ATOM   12646  C    ALA E 152      114.745  95.397   4.532  1.00100.26      6
ATOM   12647  O    ALA E 152      115.823  94.909   4.196  1.00100.22      8
```

```
ATOM   12648  N   ALA E 153      114.591  96.677   4.848  1.00 88.91      7
ATOM   12649  CA  ALA E 153      115.710  97.599   4.838  1.00 88.85      6
ATOM   12650  CB  ALA E 153      115.309  98.931   5.469  1.00 53.58      6
ATOM   12651  C   ALA E 153      116.814  96.950   5.646  1.00 89.26      6
ATOM   12652  O   ALA E 153      117.895  96.680   5.130  1.00 90.15      8
ATOM   12653  N   ALA E 154      116.520  96.679   6.913  1.00 65.53      7
ATOM   12654  CA  ALA E 154      117.479  96.058   7.816  1.00 64.96      6
ATOM   12655  CB  ALA E 154      116.908  96.042   9.224  1.00 20.30      6
ATOM   12656  C   ALA E 154      117.873  94.640   7.389  1.00 64.65      6
ATOM   12657  O   ALA E 154      118.616  93.956   8.097  1.00 64.49      8
ATOM   12658  N   ALA E 155      117.381  94.211   6.228  1.00100.32      7
ATOM   12659  CA  ALA E 155      117.680  92.880   5.701  1.00101.00      6
ATOM   12660  CB  ALA E 155      116.391  92.209   5.219  1.00 79.53      6
ATOM   12661  C   ALA E 155      118.713  92.917   4.564  1.00101.26      6
ATOM   12662  O   ALA E 155      119.751  92.228   4.690  1.00101.36      8
ATOM   12663  OXT ALA E 155      118.478  93.623   3.557  1.00 79.48      8
ATOM   12664  CB  ALA F 452      120.550  88.822  12.955  1.00 38.60      6
ATOM   12665  C   ALA F 452      119.171  90.755  12.218  1.00 67.11      6
ATOM   12666  O   ALA F 452      119.148  91.619  13.095  1.00 67.68      8
ATOM   12667  N   ALA F 452      121.671  90.756  11.907  1.00 66.01      7
ATOM   12668  CA  ALA F 452      120.425  89.931  11.929  1.00 66.79      6
ATOM   12669  N   ALA F 453      118.113  90.454  11.482  1.00116.35      7
ATOM   12670  CA  ALA F 453      116.858  91.167  11.631  1.00116.97      6
ATOM   12671  CB  ALA F 453      115.972  90.902  10.409  1.00200.00      6
ATOM   12672  C   ALA F 453      116.097  90.834  12.915  1.00116.82      6
ATOM   12673  O   ALA F 453      116.690  90.551  13.957  1.00116.02      8
ATOM   12674  N   ALA F 454      114.771  90.874  12.808  1.00 83.92      7
ATOM   12675  CA  ALA F 454      113.864  90.613  13.914  1.00 83.90      6
ATOM   12676  CB  ALA F 454      113.159  91.891  14.286  1.00 74.11      6
ATOM   12677  C   ALA F 454      112.836  89.557  13.534  1.00 83.87      6
ATOM   12678  O   ALA F 454      113.056  88.756  12.626  1.00 83.95      8
ATOM   12679  N   ALA F 455      111.700  89.579  14.225  1.00124.76      7
ATOM   12680  CA  ALA F 455      110.627  88.625  13.974  1.00125.32      6
ATOM   12681  CB  ALA F 455      110.726  87.472  14.964  1.00 36.96      6
ATOM   12682  C   ALA F 455      109.250  89.277  14.075  1.00125.72      6
ATOM   12683  O   ALA F 455      109.130  90.458  14.403  1.00126.19      8
ATOM   12684  N   MET F 456      108.217  88.492  13.785  1.00125.26      7
ATOM   12685  CA  MET F 456      106.837  88.960  13.855  1.00125.09      6
ATOM   12686  CB  MET F 456      106.418  89.616  12.540  1.00119.07      6
ATOM   12687  CG  MET F 456      105.019  90.211  12.575  1.00121.00      6
ATOM   12688  SD  MET F 456      104.271  90.298  10.947  1.00122.21     16
ATOM   12689  CE  MET F 456      104.846  91.866  10.393  1.00123.98      6
ATOM   12690  C   MET F 456      105.905  87.785  14.144  1.00124.57      6
ATOM   12691  O   MET F 456      106.307  86.620  14.043  1.00124.83      8
ATOM   12692  N   GLY F 457      104.662  88.098  14.500  1.00146.13      7
ATOM   12693  CA  GLY F 457      103.687  87.065  14.795  1.00144.47      6
ATOM   12694  C   GLY F 457      103.554  86.800  16.280  1.00143.55      6
ATOM   12695  O   GLY F 457      104.230  87.428  17.095  1.00143.63      8
ATOM   12696  N   ALA F 458      102.678  85.863  16.630  1.00 89.49      7
ATOM   12697  CA  ALA F 458      102.445  85.502  18.025  1.00 87.39      6
ATOM   12698  CB  ALA F 458      101.226  84.599  18.130  1.00117.14      6
ATOM   12699  C   ALA F 458      103.663  84.804  18.604  1.00 85.65      6
ATOM   12700  O   ALA F 458      103.966  84.944  19.783  1.00 85.39      8
ATOM   12701  N   GLU F 459      104.358  84.049  17.764  1.00 58.03      7
ATOM   12702  CA  GLU F 459      105.549  83.341  18.193  1.00 56.94      6
ATOM   12703  CB  GLU F 459      106.075  82.447  17.064  1.00 92.28      6
```

227

```
ATOM  12704  CG   GLU F 459     107.264  81.581  17.463  1.00 92.76      6
ATOM  12705  CD   GLU F 459     107.660  80.595  16.383  1.00 93.55      6
ATOM  12706  OE1  GLU F 459     108.028  81.041  15.276  1.00 93.66      8
ATOM  12707  OE2  GLU F 459     107.603  79.372  16.640  1.00 94.23      8
ATOM  12708  C    GLU F 459     106.610  84.359  18.587  1.00 55.62      6
ATOM  12709  O    GLU F 459     107.421  84.111  19.480  1.00 55.42      8
ATOM  12710  N    ALA F 460     106.599  85.505  17.913  1.00 57.59      7
ATOM  12711  CA   ALA F 460     107.554  86.573  18.199  1.00 56.41      6
ATOM  12712  CB   ALA F 460     107.422  87.680  17.168  1.00 66.61      6
ATOM  12713  C    ALA F 460     107.262  87.122  19.589  1.00 56.10      6
ATOM  12714  O    ALA F 460     108.147  87.194  20.449  1.00 54.89      8
ATOM  12715  N    ILE F 461     106.006  87.513  19.792  1.00 86.97      7
ATOM  12716  CA   ILE F 461     105.564  88.042  21.071  1.00 86.53      6
ATOM  12717  CB   ILE F 461     104.083  88.371  21.057  1.00 62.08      6
ATOM  12718  CG2  ILE F 461     103.727  89.159  22.294  1.00 61.62      6
ATOM  12719  CG1  ILE F 461     103.744  89.154  19.786  1.00 61.89      6
ATOM  12720  CD1  ILE F 461     104.631  90.351  19.528  1.00 61.14      6
ATOM  12721  C    ILE F 461     105.795  86.945  22.075  1.00 87.34      6
ATOM  12722  O    ILE F 461     106.306  87.186  23.160  1.00 88.20      8
ATOM  12723  N    GLN F 462     105.410  85.731  21.703  1.00 59.54      7
ATOM  12724  CA   GLN F 462     105.620  84.584  22.572  1.00 59.73      6
ATOM  12725  CB   GLN F 462     105.355  83.280  21.818  1.00 89.81      6
ATOM  12726  CG   GLN F 462     105.526  82.037  22.668  1.00 90.71      6
ATOM  12727  CD   GLN F 462     105.328  80.761  21.878  1.00 91.74      6
ATOM  12728  OE1  GLN F 462     106.032  80.516  20.903  1.00 92.84      8
ATOM  12729  NE2  GLN F 462     104.371  79.938  22.297  1.00 92.15      7
ATOM  12730  C    GLN F 462     107.088  84.683  22.936  1.00 59.95      6
ATOM  12731  O    GLN F 462     107.445  84.850  24.106  1.00 59.75      8
ATOM  12732  N    GLU F 463     107.927  84.607  21.907  1.00102.73      7
ATOM  12733  CA   GLU F 463     109.368  84.713  22.065  1.00103.40      6
ATOM  12734  CB   GLU F 463     110.006  85.097  20.725  1.00141.27      6
ATOM  12735  CG   GLU F 463     111.504  85.335  20.773  1.00141.64      6
ATOM  12736  CD   GLU F 463     112.059  85.810  19.441  1.00141.81      6
ATOM  12737  OE1  GLU F 463     111.570  86.838  18.924  1.00141.52      8
ATOM  12738  OE2  GLU F 463     112.985  85.156  18.913  1.00142.23      8
ATOM  12739  C    GLU F 463     109.635  85.788  23.115  1.00104.05      6
ATOM  12740  O    GLU F 463     110.198  85.511  24.176  1.00103.97      8
ATOM  12741  N    LEU F 464     109.205  87.011  22.828  1.00 65.20      7
ATOM  12742  CA   LEU F 464     109.396  88.108  23.763  1.00 65.47      6
ATOM  12743  CB   LEU F 464     108.599  89.335  23.302  1.00 23.98      6
ATOM  12744  CG   LEU F 464     109.111  90.041  22.045  1.00 22.38      6
ATOM  12745  CD1  LEU F 464     108.170  91.160  21.594  1.00 21.31      6
ATOM  12746  CD2  LEU F 464     110.481  90.596  22.357  1.00 22.00      6
ATOM  12747  C    LEU F 464     108.967  87.695  25.173  1.00 66.98      6
ATOM  12748  O    LEU F 464     109.739  87.815  26.124  1.00 66.60      8
ATOM  12749  N    LEU F 465     107.739  87.198  25.304  1.00 90.78      7
ATOM  12750  CA   LEU F 465     107.235  86.784  26.607  1.00 93.27      6
ATOM  12751  CB   LEU F 465     105.764  86.351  26.519  1.00 57.35      6
ATOM  12752  CG   LEU F 465     104.745  87.501  26.623  1.00 56.24      6
ATOM  12753  CD1  LEU F 465     104.604  88.226  25.298  1.00 55.61      6
ATOM  12754  CD2  LEU F 465     103.401  86.955  27.048  1.00 55.69      6
ATOM  12755  C    LEU F 465     108.085  85.669  27.191  1.00 95.50      6
ATOM  12756  O    LEU F 465     108.746  85.857  28.212  1.00 96.05      8
ATOM  12757  N    ALA F 466     108.080  84.510  26.547  1.00162.20      7
ATOM  12758  CA   ALA F 466     108.877  83.396  27.033  1.00165.26      6
ATOM  12759  CB   ALA F 466     108.807  82.225  26.057  1.00140.53      6
```

```
ATOM    12760  C    ALA F 466      110.313  83.873  27.174  1.00167.47    6
ATOM    12761  O    ALA F 466      110.677  84.918  26.638  1.00167.66    8
ATOM    12762  N    ALA F 467      111.110  83.106  27.912  1.00208.87    7
ATOM    12763  CA   ALA F 467      112.522  83.402  28.143  1.00208.87    6
ATOM    12764  CB   ALA F 467      113.347  82.899  26.965  1.00176.73    6
ATOM    12765  C    ALA F 467      112.864  84.867  28.428  1.00208.87    6
ATOM    12766  O    ALA F 467      113.292  85.198  29.533  1.00208.87    8
ATOM    12767  N    ALA F 468      112.687  85.728  27.428  1.00164.03    7
ATOM    12768  CA   ALA F 468      112.986  87.156  27.541  1.00165.22    6
ATOM    12769  CB   ALA F 468      112.349  87.912  26.384  1.00105.32    6
ATOM    12770  C    ALA F 468      112.557  87.778  28.864  1.00166.15    6
ATOM    12771  O    ALA F 468      113.163  87.515  29.904  1.00167.06    8
ATOM    12772  N    ASP F 469      111.518  88.609  28.827  1.00109.62    7
ATOM    12773  CA   ASP F 469      111.046  89.258  30.047  1.00109.91    6
ATOM    12774  CB   ASP F 469      109.794  90.103  29.773  1.00192.11    6
ATOM    12775  CG   ASP F 469      108.508  89.325  29.954  1.00193.81    6
ATOM    12776  OD1  ASP F 469      108.331  88.294  29.274  1.00195.21    8
ATOM    12777  OD2  ASP F 469      107.671  89.751  30.779  1.00195.31    8
ATOM    12778  C    ASP F 469      110.747  88.180  31.078  1.00108.88    6
ATOM    12779  O    ASP F 469      110.533  88.464  32.256  1.00108.46    8
ATOM    12780  N    ALA F 470      110.751  86.936  30.611  1.00123.41    7
ATOM    12781  CA   ALA F 470      110.504  85.794  31.465  1.00123.29    6
ATOM    12782  CB   ALA F 470      110.787  84.519  30.715  1.00 39.27    6
ATOM    12783  C    ALA F 470      111.398  85.904  32.692  1.00123.52    6
ATOM    12784  O    ALA F 470      111.131  85.282  33.720  1.00123.75    8
ATOM    12785  N    GLU F 471      112.470  86.684  32.581  1.00100.50    7
ATOM    12786  CA   GLU F 471      113.344  86.887  33.724  1.00101.02    6
ATOM    12787  CB   GLU F 471      114.746  87.314  33.277  1.00121.34    6
ATOM    12788  CG   GLU F 471      114.801  88.468  32.298  1.00121.94    6
ATOM    12789  CD   GLU F 471      116.230  88.814  31.909  1.00123.23    6
ATOM    12790  OE1  GLU F 471      116.939  87.934  31.375  1.00124.22    8
ATOM    12791  OE2  GLU F 471      116.649  89.966  32.142  1.00124.59    8
ATOM    12792  C    GLU F 471      112.649  87.989  34.508  1.00101.49    6
ATOM    12793  O    GLU F 471      113.089  89.136  34.534  1.00102.02    8
ATOM    12794  N    ALA F 472      111.535  87.610  35.130  1.00134.27    7
ATOM    12795  CA   ALA F 472      110.694  88.518  35.901  1.00134.15    6
ATOM    12796  CB   ALA F 472      109.315  87.893  36.108  1.00153.46    6
ATOM    12797  C    ALA F 472      111.272  88.942  37.237  1.00133.41    6
ATOM    12798  O    ALA F 472      111.185  90.112  37.602  1.00133.06    8
ATOM    12799  N    LEU F 473      111.843  87.999  37.978  1.00152.73    7
ATOM    12800  CA   LEU F 473      112.428  88.331  39.269  1.00153.61    6
ATOM    12801  CB   LEU F 473      113.378  87.226  39.731  1.00199.24    6
ATOM    12802  CG   LEU F 473      112.750  85.898  40.151  1.00200.51    6
ATOM    12803  CD1  LEU F 473      113.853  84.921  40.529  1.00200.81    6
ATOM    12804  CD2  LEU F 473      111.804  86.123  41.325  1.00200.52    6
ATOM    12805  C    LEU F 473      113.197  89.637  39.142  1.00153.51    6
ATOM    12806  O    LEU F 473      113.320  90.396  40.105  1.00154.38    8
ATOM    12807  N    GLU F 474      113.710  89.890  37.941  1.00107.94    7
ATOM    12808  CA   GLU F 474      114.464  91.104  37.672  1.00107.24    6
ATOM    12809  CB   GLU F 474      115.330  90.911  36.420  1.00140.51    6
ATOM    12810  CG   GLU F 474      116.474  89.913  36.651  1.00140.87    6
ATOM    12811  CD   GLU F 474      117.262  89.577  35.394  1.00141.43    6
ATOM    12812  OE1  GLU F 474      117.742  90.509  34.717  1.00142.23    8
ATOM    12813  OE2  GLU F 474      117.413  88.373  35.089  1.00141.78    8
ATOM    12814  C    GLU F 474      113.517  92.292  37.526  1.00107.50    6
ATOM    12815  O    GLU F 474      113.692  93.313  38.193  1.00107.84    8
```

229

```
ATOM    12816  N   ARG F 475     112.505  92.155  36.675  1.00107.45     7
ATOM    12817  CA  ARG F 475     111.527  93.224  36.480  1.00107.51     6
ATOM    12818  CB  ARG F 475     110.458  92.787  35.474  1.00141.99     6
ATOM    12819  CG  ARG F 475     110.974  92.448  34.080  1.00141.55     6
ATOM    12820  CD  ARG F 475     111.535  93.667  33.359  1.00141.54     6
ATOM    12821  NE  ARG F 475     111.576  93.458  31.913  1.00141.93     7
ATOM    12822  CZ  ARG F 475     111.971  94.371  31.031  1.00141.54     6
ATOM    12823  NH1 ARG F 475     112.367  95.567  31.441  1.00141.34     7
ATOM    12824  NH2 ARG F 475     111.958  94.089  29.735  1.00141.23     7
ATOM    12825  C   ARG F 475     110.861  93.542  37.822  1.00107.45     6
ATOM    12826  O   ARG F 475     110.295  94.621  38.021  1.00107.57     8
ATOM    12827  N   ALA F 476     110.935  92.583  38.738  1.00 99.87     7
ATOM    12828  CA  ALA F 476     110.351  92.720  40.065  1.00 99.52     6
ATOM    12829  CB  ALA F 476     110.477  91.395  40.823  1.00 23.91     6
ATOM    12830  C   ALA F 476     111.012  93.848  40.858  1.00 99.38     6
ATOM    12831  O   ALA F 476     110.378  94.870  41.141  1.00 99.48     8
ATOM    12832  N   LEU F 477     112.282  93.656  41.218  1.00 83.50     7
ATOM    12833  CA  LEU F 477     113.022  94.657  41.980  1.00 83.52     6
ATOM    12834  CB  LEU F 477     114.353  94.090  42.469  1.00 91.72     6
ATOM    12835  CG  LEU F 477     115.096  94.997  43.458  1.00 92.35     6
ATOM    12836  CD1 LEU F 477     114.213  95.278  44.671  1.00 92.01     6
ATOM    12837  CD2 LEU F 477     116.408  94.338  43.888  1.00 92.88     6
ATOM    12838  C   LEU F 477     113.272  95.863  41.096  1.00 83.85     6
ATOM    12839  O   LEU F 477     113.595  96.950  41.581  1.00 83.05     8
ATOM    12840  N   ALA F 478     113.120  95.656  39.792  1.00145.48     7
ATOM    12841  CA  ALA F 478     113.297  96.720  38.816  1.00147.27     6
ATOM    12842  CB  ALA F 478     113.356  96.139  37.412  1.00126.87     6
ATOM    12843  C   ALA F 478     112.096  97.641  38.952  1.00148.37     6
ATOM    12844  O   ALA F 478     112.232  98.821  39.277  1.00148.44     8
ATOM    12845  N   ALA F 479     110.915  97.089  38.702  1.00136.33     7
ATOM    12846  CA  ALA F 479     109.687  97.855  38.820  1.00137.64     6
ATOM    12847  CB  ALA F 479     108.482  96.929  38.660  1.00117.85     6
ATOM    12848  C   ALA F 479     109.693  98.493  40.207  1.00138.59     6
ATOM    12849  O   ALA F 479     109.482  99.699  40.357  1.00139.42     8
ATOM    12850  N   GLU F 480     109.958  97.668  41.216  1.00152.44     7
ATOM    12851  CA  GLU F 480     110.010  98.119  42.600  1.00153.69     6
ATOM    12852  CB  GLU F 480     110.554  96.996  43.492  1.00169.11     6
ATOM    12853  CG  GLU F 480     110.873  97.411  44.922  1.00170.48     6
ATOM    12854  CD  GLU F 480     109.646  97.826  45.706  1.00171.78     6
ATOM    12855  OE1 GLU F 480     108.756  96.977  45.909  1.00172.92     8
ATOM    12856  OE2 GLU F 480     109.572  99.001  46.123  1.00172.97     8
ATOM    12857  C   GLU F 480     110.889  99.359  42.731  1.00154.65     6
ATOM    12858  O   GLU F 480     110.735 100.141  43.669  1.00154.26     8
ATOM    12859  N   MET F 481     111.807  99.541  41.787  1.00171.53     7
ATOM    12860  CA  MET F 481     112.698 100.692  41.833  1.00172.59     6
ATOM    12861  CB  MET F 481     114.032 100.377  41.145  1.00195.46     6
ATOM    12862  CG  MET F 481     115.126 101.411  41.420  1.00197.17     6
ATOM    12863  SD  MET F 481     115.700 102.328  39.968  1.00198.29    16
ATOM    12864  CE  MET F 481     117.184 101.401  39.565  1.00198.23     6
ATOM    12865  C   MET F 481     112.068 101.917  41.186  1.00172.32     6
ATOM    12866  O   MET F 481     112.696 102.974  41.115  1.00172.57     8
ATOM    12867  N   LYS F 482     110.833 101.787  40.712  1.00125.11     7
ATOM    12868  CA  LYS F 482     110.182 102.933  40.101  1.00125.70     6
ATOM    12869  CB  LYS F 482     109.566 102.577  38.750  1.00123.80     6
ATOM    12870  CG  LYS F 482     109.282 103.809  37.895  1.00124.10     6
ATOM    12871  CD  LYS F 482     109.064 103.435  36.443  1.00124.93     6
```

```
ATOM   12872  CE   LYS F 482      109.085 104.660  35.549  1.00125.42      6
ATOM   12873  NZ   LYS F 482      109.040 104.274  34.109  1.00125.58      7
ATOM   12874  C    LYS F 482      109.124 103.519  41.018  1.00125.74      6
ATOM   12875  O    LYS F 482      108.029 102.980  41.176  1.00125.86      8
ATOM   12876  N    ALA F 483      109.495 104.636  41.625  1.00201.16      7
ATOM   12877  CA   ALA F 483      108.658 105.380  42.543  1.00200.45      6
ATOM   12878  CB   ALA F 483      108.714 104.750  43.930  1.00 57.23      6
ATOM   12879  C    ALA F 483      109.169 106.820  42.592  1.00200.60      6
ATOM   12880  O    ALA F 483      108.389 107.752  42.793  1.00201.18      8
ATOM   12881  N    PRO F 484      110.490 107.025  42.397  1.00128.83      7
ATOM   12882  CD   PRO F 484      111.546 106.096  41.960  1.00163.61      6
ATOM   12883  CA   PRO F 484      111.012 108.392  42.437  1.00128.74      6
ATOM   12884  CB   PRO F 484      112.467 108.221  42.000  1.00163.95      6
ATOM   12885  CG   PRO F 484      112.427 106.998  41.144  1.00163.51      6
ATOM   12886  C    PRO F 484      110.234 109.313  41.516  1.00128.71      6
ATOM   12887  O    PRO F 484      109.676 110.315  41.959  1.00128.57      8
ATOM   12888  N    SER F 485      110.193 108.963  40.236  1.00110.07      7
ATOM   12889  CA   SER F 485      109.470 109.762  39.258  1.00110.23      6
ATOM   12890  CB   SER F 485      109.391 109.015  37.925  1.00126.40      6
ATOM   12891  OG   SER F 485      108.681 109.770  36.960  1.00126.46      8
ATOM   12892  C    SER F 485      108.063 110.087  39.767  1.00110.37      6
ATOM   12893  O    SER F 485      107.555 109.442  40.688  1.00110.69      8
ATOM   12894  N    ARG F 486      107.444 111.095  39.161  1.00108.29      7
ATOM   12895  CA   ARG F 486      106.108 111.538  39.542  1.00108.04      6
ATOM   12896  CB   ARG F 486      105.807 112.883  38.878  1.00191.80      6
ATOM   12897  CG   ARG F 486      106.120 112.937  37.386  1.00191.38      6
ATOM   12898  CD   ARG F 486      105.239 113.968  36.703  1.00190.89      6
ATOM   12899  NE   ARG F 486      105.201 115.223  37.449  1.00190.38      7
ATOM   12900  CZ   ARG F 486      104.299 116.178  37.255  1.00190.43      6
ATOM   12901  NH1  ARG F 486      103.355 116.024  36.336  1.00190.60      7
ATOM   12902  NH2  ARG F 486      104.334 117.285  37.986  1.00190.17      7
ATOM   12903  C    ARG F 486      104.972 110.559  39.229  1.00108.40      6
ATOM   12904  O    ARG F 486      104.580 109.756  40.077  1.00108.25      8
ATOM   12905  N    ALA F 487      104.440 110.641  38.012  1.00208.87      7
ATOM   12906  CA   ALA F 487      103.332 109.789  37.582  1.00208.87      6
ATOM   12907  CB   ALA F 487      102.559 110.480  36.452  1.00163.19      6
ATOM   12908  C    ALA F 487      103.764 108.388  37.143  1.00208.87      6
ATOM   12909  O    ALA F 487      103.075 107.403  37.421  1.00208.87      8
ATOM   12910  N    ARG F 488      104.898 108.301  36.454  1.00183.84      7
ATOM   12911  CA   ARG F 488      105.415 107.019  35.979  1.00183.25      6
ATOM   12912  CB   ARG F 488      106.778 107.225  35.318  1.00195.91      6
ATOM   12913  CG   ARG F 488      106.778 108.271  34.214  1.00196.60      6
ATOM   12914  CD   ARG F 488      108.187 108.517  33.696  1.00197.72      6
ATOM   12915  NE   ARG F 488      108.222 109.500  32.617  1.00198.81      7
ATOM   12916  CZ   ARG F 488      109.334 109.899  32.006  1.00199.34      6
ATOM   12917  NH1  ARG F 488      110.510 109.400  32.367  1.00200.18      7
ATOM   12918  NH2  ARG F 488      109.272 110.794  31.030  1.00199.44      7
ATOM   12919  C    ARG F 488      105.547 106.029  37.133  1.00182.60      6
ATOM   12920  O    ARG F 488      105.600 104.816  36.926  1.00182.59      8
ATOM   12921  N    ARG F 489      105.601 106.568  38.348  1.00194.53      7
ATOM   12922  CA   ARG F 489      105.728 105.772  39.563  1.00193.24      6
ATOM   12923  CB   ARG F 489      105.595 106.668  40.799  1.00207.41      6
ATOM   12924  CG   ARG F 489      105.414 105.899  42.103  1.00208.86      6
ATOM   12925  CD   ARG F 489      104.827 106.782  43.196  1.00208.87      6
ATOM   12926  NE   ARG F 489      104.466 106.014  44.386  1.00208.87      7
ATOM   12927  CZ   ARG F 489      103.763 106.498  45.408  1.00208.87      6
```

231

```
ATOM   12928  NH1 ARG F 489      103.338 107.756  45.392  1.00208.87      7
ATOM   12929  NH2 ARG F 489      103.481 105.721  46.445  1.00208.87      7
ATOM   12930  C   ARG F 489      104.672 104.683  39.635  1.00191.50      6
ATOM   12931  O   ARG F 489      104.951 103.562  40.056  1.00191.14      8
ATOM   12932  N   ALA F 490      103.458 105.021  39.218  1.00104.12      7
ATOM   12933  CA  ALA F 490      102.345 104.082  39.260  1.00102.04      6
ATOM   12934  CB  ALA F 490      101.030 104.853  39.236  1.00167.05      6
ATOM   12935  C   ALA F 490      102.359 103.041  38.146  1.00100.50      6
ATOM   12936  O   ALA F 490      102.230 101.843  38.406  1.00 99.85      8
ATOM   12937  N   LYS F 491      102.506 103.502  36.908  1.00 76.30      7
ATOM   12938  CA  LYS F 491      102.517 102.608  35.757  1.00 75.17      6
ATOM   12939  CB  LYS F 491      103.203 103.293  34.568  1.00127.19      6
ATOM   12940  CG  LYS F 491      103.182 102.472  33.281  1.00127.46      6
ATOM   12941  CD  LYS F 491      103.762 103.244  32.094  1.00127.22      6
ATOM   12942  CE  LYS F 491      103.773 102.395  30.823  1.00126.76      6
ATOM   12943  NZ  LYS F 491      104.299 103.134  29.642  1.00125.81      7
ATOM   12944  C   LYS F 491      103.207 101.284  36.077  1.00 74.50      6
ATOM   12945  O   LYS F 491      102.566 100.234  36.120  1.00 74.45      8
ATOM   12946  N   ALA F 492      104.513 101.339  36.317  1.00154.72      7
ATOM   12947  CA  ALA F 492      105.276 100.138  36.627  1.00153.72      6
ATOM   12948  CB  ALA F 492      106.727 100.507  36.957  1.00 87.63      6
ATOM   12949  C   ALA F 492      104.650  99.352  37.780  1.00152.88      6
ATOM   12950  O   ALA F 492      104.627  98.123  37.761  1.00153.45      8
ATOM   12951  N   ARG F 493      104.131 100.056  38.778  1.00 91.36      7
ATOM   12952  CA  ARG F 493      103.521  99.390  39.922  1.00 90.04      6
ATOM   12953  CB  ARG F 493      103.115 100.417  40.974  1.00125.67      6
ATOM   12954  CG  ARG F 493      104.294 101.163  41.552  1.00125.72      6
ATOM   12955  CD  ARG F 493      105.274 100.217  42.222  1.00125.76      6
ATOM   12956  NE  ARG F 493      106.494 100.917  42.602  1.00126.66      7
ATOM   12957  CZ  ARG F 493      107.459 100.392  43.347  1.00127.10      6
ATOM   12958  NH1 ARG F 493      107.350  99.150  43.800  1.00126.62      7
ATOM   12959  NH2 ARG F 493      108.531 101.114  43.638  1.00127.67      7
ATOM   12960  C   ARG F 493      102.320  98.538  39.541  1.00 89.07      6
ATOM   12961  O   ARG F 493      102.153  97.434  40.055  1.00 89.29      8
ATOM   12962  N   LYS F 494      101.471  99.049  38.654  1.00 87.69      7
ATOM   12963  CA  LYS F 494      100.309  98.277  38.227  1.00 85.89      6
ATOM   12964  CB  LYS F 494       99.505  99.027  37.158  1.00135.77      6
ATOM   12965  CG  LYS F 494       98.483  98.159  36.416  1.00136.55      6
ATOM   12966  CD  LYS F 494       97.562  97.405  37.374  1.00137.12      6
ATOM   12967  CE  LYS F 494       96.638  96.450  36.629  1.00136.57      6
ATOM   12968  NZ  LYS F 494       95.858  95.587  37.559  1.00136.70      7
ATOM   12969  C   LYS F 494      100.847  96.978  37.661  1.00 83.95      6
ATOM   12970  O   LYS F 494      100.259  95.913  37.852  1.00 83.51      8
ATOM   12971  N   ARG F 495      101.975  97.078  36.964  1.00 55.10      7
ATOM   12972  CA  ARG F 495      102.607  95.901  36.402  1.00 53.32      6
ATOM   12973  CB  ARG F 495      103.890  96.272  35.677  1.00 88.28      6
ATOM   12974  CG  ARG F 495      103.732  97.313  34.596  1.00 89.56      6
ATOM   12975  CD  ARG F 495      104.991  97.321  33.753  1.00 90.19      6
ATOM   12976  NE  ARG F 495      104.966  98.309  32.686  1.00 91.11      7
ATOM   12977  CZ  ARG F 495      105.882  98.367  31.730  1.00 92.51      6
ATOM   12978  NH1 ARG F 495      106.879  97.488  31.724  1.00 92.23      7
ATOM   12979  NH2 ARG F 495      105.809  99.303  30.791  1.00 93.51      7
ATOM   12980  C   ARG F 495      102.944  95.003  37.581  1.00 51.67      6
ATOM   12981  O   ARG F 495      102.719  93.801  37.546  1.00 50.96      8
ATOM   12982  N   LEU F 496      103.487  95.607  38.631  1.00 63.99      7
ATOM   12983  CA  LEU F 496      103.847  94.868  39.828  1.00 63.47      6
```

```
ATOM  12984  CB   LEU F 496      104.200  95.843  40.953  1.00 65.63      6
ATOM  12985  CG   LEU F 496      104.639  95.302  42.316  1.00 65.50      6
ATOM  12986  CD1  LEU F 496      105.927  94.498  42.213  1.00 65.71      6
ATOM  12987  CD2  LEU F 496      104.838  96.485  43.231  1.00 65.48      6
ATOM  12988  C    LEU F 496      102.656  93.996  40.216  1.00 63.38      6
ATOM  12989  O    LEU F 496      102.814  92.828  40.570  1.00 63.43      8
ATOM  12990  N    GLU F 497      101.456  94.560  40.139  1.00122.41      7
ATOM  12991  CA   GLU F 497      100.265  93.789  40.471  1.00122.58      6
ATOM  12992  CB   GLU F 497       98.996  94.636  40.296  1.00133.57      6
ATOM  12993  CG   GLU F 497       98.753  95.631  41.428  1.00135.30      6
ATOM  12994  CD   GLU F 497       97.354  96.224  41.402  1.00135.97      6
ATOM  12995  OE1  GLU F 497       97.065  97.047  40.507  1.00136.03      8
ATOM  12996  OE2  GLU F 497       96.541  95.862  42.279  1.00137.23      8
ATOM  12997  C    GLU F 497      100.218  92.573  39.553  1.00122.13      6
ATOM  12998  O    GLU F 497      100.154  91.436  40.017  1.00122.56      8
ATOM  12999  N    VAL F 498      100.272  92.828  38.250  1.00 72.19      7
ATOM  13000  CA   VAL F 498      100.242  91.774  37.249  1.00 70.74      6
ATOM  13001  CB   VAL F 498      100.221  92.378  35.824  1.00 72.47      6
ATOM  13002  CG1  VAL F 498       99.927  91.300  34.799  1.00 72.74      6
ATOM  13003  CG2  VAL F 498       99.191  93.484  35.744  1.00 72.28      6
ATOM  13004  C    VAL F 498      101.480  90.891  37.395  1.00 70.14      6
ATOM  13005  O    VAL F 498      101.379  89.669  37.478  1.00 70.06      8
ATOM  13006  N    VAL F 499      102.648  91.527  37.426  1.00 55.74      7
ATOM  13007  CA   VAL F 499      103.923  90.831  37.550  1.00 54.82      6
ATOM  13008  CB   VAL F 499      105.093  91.815  37.601  1.00 43.37      6
ATOM  13009  CG1  VAL F 499      106.377  91.067  37.945  1.00 43.47      6
ATOM  13010  CG2  VAL F 499      105.211  92.548  36.268  1.00 42.33      6
ATOM  13011  C    VAL F 499      103.971  89.982  38.801  1.00 55.59      6
ATOM  13012  O    VAL F 499      104.171  88.775  38.724  1.00 55.51      8
ATOM  13013  N    ARG F 500      103.809  90.614  39.959  1.00 56.20      7
ATOM  13014  CA   ARG F 500      103.823  89.859  41.199  1.00 57.29      6
ATOM  13015  CB   ARG F 500      103.587  90.764  42.416  1.00104.33      6
ATOM  13016  CG   ARG F 500      104.844  91.519  42.863  1.00105.86      6
ATOM  13017  CD   ARG F 500      106.035  90.560  43.038  1.00107.04      6
ATOM  13018  NE   ARG F 500      107.312  91.247  43.251  1.00107.51      7
ATOM  13019  CZ   ARG F 500      108.489  90.633  43.380  1.00107.98      6
ATOM  13020  NH1  ARG F 500      108.574  89.310  43.319  1.00108.10      7
ATOM  13021  NH2  ARG F 500      109.591  91.342  43.578  1.00108.12      7
ATOM  13022  C    ARG F 500      102.731  88.814  41.079  1.00 57.39      6
ATOM  13023  O    ARG F 500      102.906  87.671  41.501  1.00 57.07      8
ATOM  13024  N    ALA F 501      101.611  89.201  40.477  1.00 75.03      7
ATOM  13025  CA   ALA F 501      100.513  88.263  40.282  1.00 75.89      6
ATOM  13026  CB   ALA F 501       99.393  88.910  39.467  1.00 97.61      6
ATOM  13027  C    ALA F 501      101.091  87.075  39.528  1.00 75.95      6
ATOM  13028  O    ALA F 501      101.143  85.955  40.042  1.00 75.79      8
ATOM  13029  N    PHE F 502      101.535  87.338  38.305  1.00 72.31      7
ATOM  13030  CA   PHE F 502      102.119  86.305  37.479  1.00 73.66      6
ATOM  13031  CB   PHE F 502      102.751  86.923  36.231  1.00106.46      6
ATOM  13032  CG   PHE F 502      101.938  86.719  34.992  1.00107.25      6
ATOM  13033  CD1  PHE F 502      100.591  87.043  34.976  1.00107.94      6
ATOM  13034  CD2  PHE F 502      102.498  86.152  33.858  1.00107.10      6
ATOM  13035  CE1  PHE F 502       99.809  86.799  33.853  1.00108.27      6
ATOM  13036  CE2  PHE F 502      101.721  85.905  32.730  1.00107.18      6
ATOM  13037  CZ   PHE F 502      100.373  86.229  32.732  1.00107.70      6
ATOM  13038  C    PHE F 502      103.159  85.581  38.298  1.00 74.40      6
ATOM  13039  O    PHE F 502      102.986  84.417  38.659  1.00 75.35      8
```

```
ATOM    13040  N    LEU F 503      104.227  86.300  38.612  1.00144.01      7
ATOM    13041  CA   LEU F 503      105.341  85.777  39.385  1.00143.30      6
ATOM    13042  CB   LEU F 503      106.236  86.941  39.812  1.00 62.42      6
ATOM    13043  CG   LEU F 503      107.595  86.642  40.432  1.00 61.59      6
ATOM    13044  CD1  LEU F 503      108.292  85.474  39.727  1.00 61.85      6
ATOM    13045  CD2  LEU F 503      108.416  87.913  40.343  1.00 61.12      6
ATOM    13046  C    LEU F 503      104.901  84.966  40.601  1.00143.57      6
ATOM    13047  O    LEU F 503      105.648  84.126  41.101  1.00143.43      8
ATOM    13048  N    ASP F 504      103.684  85.212  41.070  1.00 65.46      7
ATOM    13049  CA   ASP F 504      103.169  84.494  42.225  1.00 65.60      6
ATOM    13050  CB   ASP F 504      102.127  85.344  42.953  1.00116.60      6
ATOM    13051  CG   ASP F 504      101.593  84.671  44.202  1.00117.92      6
ATOM    13052  OD1  ASP F 504      100.415  84.246  44.201  1.00118.18      8
ATOM    13053  OD2  ASP F 504      102.356  84.568  45.187  1.00118.37      8
ATOM    13054  C    ASP F 504      102.550  83.180  41.790  1.00 65.38      6
ATOM    13055  O    ASP F 504      101.956  83.086  40.711  1.00 64.75      8
ATOM    13056  N    SER F 505      102.689  82.169  42.640  1.00171.49      7
ATOM    13057  CA   SER F 505      102.148  80.846  42.358  1.00172.26      6
ATOM    13058  CB   SER F 505      100.621  80.870  42.392  1.00142.22      6
ATOM    13059  OG   SER F 505      100.103  81.468  41.213  1.00142.34      8
ATOM    13060  C    SER F 505      102.594  80.417  40.974  1.00172.09      6
ATOM    13061  O    SER F 505      103.662  80.809  40.502  1.00173.16      8
ATOM    13062  N    GLY F 506      101.756  79.621  40.322  1.00136.01      7
ATOM    13063  CA   GLY F 506      102.073  79.153  38.991  1.00135.48      6
ATOM    13064  C    GLY F 506      102.068  80.270  37.968  1.00134.91      6
ATOM    13065  O    GLY F 506      102.060  81.454  38.317  1.00134.80      8
ATOM    13066  N    ASN F 507      102.068  79.867  36.701  1.00 83.16      7
ATOM    13067  CA   ASN F 507      102.071  80.758  35.548  1.00 81.70      6
ATOM    13068  CB   ASN F 507      101.599  82.175  35.885  1.00 73.42      6
ATOM    13069  CG   ASN F 507      101.890  83.169  34.755  1.00 72.57      6
ATOM    13070  OD1  ASN F 507      101.037  83.458  33.917  1.00 72.40      8
ATOM    13071  ND2  ASN F 507      103.112  83.674  34.726  1.00 72.19      7
ATOM    13072  C    ASN F 507      103.445  80.881  34.951  1.00 80.94      6
ATOM    13073  O    ASN F 507      104.454  80.812  35.646  1.00 81.65      8
ATOM    13074  N    ARG F 508      103.441  81.075  33.641  1.00 31.98      7
ATOM    13075  CA   ARG F 508      104.609  81.268  32.808  1.00 31.15      6
ATOM    13076  CB   ARG F 508      105.322  79.939  32.520  1.00 80.17      6
ATOM    13077  CG   ARG F 508      105.405  78.991  33.711  1.00 81.68      6
ATOM    13078  CD   ARG F 508      106.294  77.766  33.470  1.00 82.38      6
ATOM    13079  NE   ARG F 508      106.313  76.885  34.644  1.00 82.32      7
ATOM    13080  CZ   ARG F 508      107.069  75.795  34.768  1.00 82.37      6
ATOM    13081  NH1  ARG F 508      107.891  75.432  33.788  1.00 81.92      7
ATOM    13082  NH2  ARG F 508      106.994  75.060  35.872  1.00 81.71      7
ATOM    13083  C    ARG F 508      103.811  81.686  31.595  1.00 30.98      6
ATOM    13084  O    ARG F 508      103.053  80.880  31.084  1.00 30.86      8
ATOM    13085  N    PRO F 509      103.905  82.953  31.158  1.00 57.22      7
ATOM    13086  CD   PRO F 509      104.693  84.033  31.771  1.00 45.48      6
ATOM    13087  CA   PRO F 509      103.169  83.451  29.986  1.00 57.41      6
ATOM    13088  CB   PRO F 509      103.974  84.667  29.576  1.00 44.60      6
ATOM    13089  CG   PRO F 509      104.334  85.238  30.903  1.00 45.30      6
ATOM    13090  C    PRO F 509      103.021  82.452  28.838  1.00 58.61      6
ATOM    13091  O    PRO F 509      103.623  82.612  27.775  1.00 58.75      8
ATOM    13092  N    GLU F 510      102.212  81.423  29.075  1.00137.55      7
ATOM    13093  CA   GLU F 510      101.943  80.376  28.102  1.00138.27      6
ATOM    13094  CB   GLU F 510      101.523  79.088  28.822  1.00 63.47      6
ATOM    13095  CG   GLU F 510      102.671  78.300  29.436  1.00 65.36      6
```

```
ATOM   13096  CD   GLU F 510      102.410  77.895  30.878  1.00 67.59      6
ATOM   13097  OE1  GLU F 510      101.326  77.353  31.154  1.00 69.46      8
ATOM   13098  OE2  GLU F 510      103.288  78.108  31.742  1.00 68.15      8
ATOM   13099  C    GLU F 510      100.808  80.877  27.234  1.00139.48      6
ATOM   13100  O    GLU F 510      100.863  80.800  26.009  1.00141.41      8
ATOM   13101  N    TRP F 511       99.784  81.394  27.902  1.00 36.04      7
ATOM   13102  CA   TRP F 511       98.602  81.943  27.262  1.00 35.28      6
ATOM   13103  CB   TRP F 511       97.855  82.837  28.249  1.00106.42      6
ATOM   13104  CG   TRP F 511       98.740  83.855  28.899  1.00106.87      6
ATOM   13105  CD2  TRP F 511       98.656  85.278  28.770  1.00106.98      6
ATOM   13106  CE2  TRP F 511       99.701  85.828  29.538  1.00107.23      6
ATOM   13107  CE3  TRP F 511       97.801  86.140  28.081  1.00107.48      6
ATOM   13108  CD1  TRP F 511       99.803  83.610  29.717  1.00107.32      6
ATOM   13109  NE1  TRP F 511      100.386  84.789  30.105  1.00107.63      7
ATOM   13110  CZ2  TRP F 511       99.912  87.201  29.636  1.00107.53      6
ATOM   13111  CZ3  TRP F 511       98.015  87.506  28.181  1.00107.86      6
ATOM   13112  CH2  TRP F 511       99.061  88.019  28.951  1.00107.57      6
ATOM   13113  C    TRP F 511       98.932  82.737  26.007  1.00 34.42      6
ATOM   13114  O    TRP F 511       98.894  83.962  25.989  1.00 33.08      8
ATOM   13115  N    MET F 512       99.247  81.991  24.964  1.00 54.37      7
ATOM   13116  CA   MET F 512       99.583  82.460  23.629  1.00 56.16      6
ATOM   13117  CB   MET F 512      100.906  83.207  23.616  1.00102.60      6
ATOM   13118  CG   MET F 512      100.767  84.612  24.147  1.00105.97      6
ATOM   13119  SD   MET F 512      102.331  85.393  24.500  1.00109.61     16
ATOM   13120  CE   MET F 512      103.055  84.175  25.623  1.00110.11      6
ATOM   13121  C    MET F 512       99.725  81.095  23.007  1.00 55.96      6
ATOM   13122  O    MET F 512      100.522  80.870  22.106  1.00 55.60      8
ATOM   13123  N    ILE F 513       98.921  80.196  23.578  1.00117.50      7
ATOM   13124  CA   ILE F 513       98.792  78.777  23.259  1.00117.53      6
ATOM   13125  CB   ILE F 513       97.352  78.287  23.603  1.00134.32      6
ATOM   13126  CG2  ILE F 513       97.086  76.913  23.008  1.00134.92      6
ATOM   13127  CG1  ILE F 513       97.171  78.232  25.120  1.00135.24      6
ATOM   13128  CD1  ILE F 513       98.110  77.261  25.816  1.00134.91      6
ATOM   13129  C    ILE F 513       99.133  78.295  21.862  1.00117.10      6
ATOM   13130  O    ILE F 513       98.947  78.998  20.869  1.00116.57      8
ATOM   13131  N    LEU F 514       99.637  77.067  21.818  1.00 57.60      7
ATOM   13132  CA   LEU F 514       99.994  76.404  20.581  1.00 57.13      6
ATOM   13133  CB   LEU F 514      101.509  76.235  20.478  1.00186.03      6
ATOM   13134  CG   LEU F 514      102.047  75.692  19.152  1.00188.54      6
ATOM   13135  CD1  LEU F 514      101.564  76.565  18.002  1.00189.47      6
ATOM   13136  CD2  LEU F 514      103.569  75.661  19.192  1.00189.74      6
ATOM   13137  C    LEU F 514       99.319  75.049  20.691  1.00 55.99      6
ATOM   13138  O    LEU F 514       99.998  74.023  20.803  1.00 55.74      8
ATOM   13139  N    ALA F 515       97.979  75.076  20.691  1.00111.70      7
ATOM   13140  CA   ALA F 515       97.115  73.890  20.799  1.00110.85      6
ATOM   13141  CB   ALA F 515       97.717  72.882  21.782  1.00 79.24      6
ATOM   13142  C    ALA F 515       95.693  74.249  21.260  1.00109.71      6
ATOM   13143  O    ALA F 515       95.379  74.100  22.442  1.00110.12      8
ATOM   13144  N    ALA F 516       94.832  74.698  20.344  1.00 72.87      7
ATOM   13145  CA   ALA F 516       93.449  75.070  20.707  1.00 71.59      6
ATOM   13146  CB   ALA F 516       92.749  75.771  19.537  1.00 13.87      6
ATOM   13147  C    ALA F 516       92.608  73.885  21.169  1.00 70.92      6
ATOM   13148  O    ALA F 516       92.942  72.730  20.911  1.00 71.10      8
ATOM   13149  N    VAL F 517       91.500  74.167  21.843  1.00 66.87      7
ATOM   13150  CA   VAL F 517       90.667  73.079  22.336  1.00 66.50      6
ATOM   13151  CB   VAL F 517       91.093  72.689  23.766  1.00 95.37      6
```

235

```
ATOM  13152  CG1 VAL F 517     90.500  71.341  24.129  1.00  96.39     6
ATOM  13153  CG2 VAL F 517     92.608  72.668  23.877  1.00  94.93     6
ATOM  13154  C   VAL F 517     89.148  73.321  22.348  1.00  65.39     6
ATOM  13155  O   VAL F 517     88.671  74.339  22.853  1.00  65.01     8
ATOM  13156  N   PRO F 518     88.377  72.385  21.766  1.00  77.59     7
ATOM  13157  CD  PRO F 518     88.925  71.439  20.778  1.00  85.26     6
ATOM  13158  CA  PRO F 518     86.915  72.405  21.675  1.00  76.43     6
ATOM  13159  CB  PRO F 518     86.666  71.894  20.266  1.00  84.37     6
ATOM  13160  CG  PRO F 518     87.665  70.852  20.134  1.00  85.38     6
ATOM  13161  C   PRO F 518     86.390  71.432  22.732  1.00  75.42     6
ATOM  13162  O   PRO F 518     87.074  70.450  23.058  1.00  75.98     8
ATOM  13163  N   VAL F 519     85.199  71.673  23.275  1.00  24.60     7
ATOM  13164  CA  VAL F 519     84.701  70.741  24.284  1.00  22.89     6
ATOM  13165  CB  VAL F 519     83.435  71.277  25.003  1.00  39.08     6
ATOM  13166  CG1 VAL F 519     83.111  70.391  26.209  1.00  39.89     6
ATOM  13167  CG2 VAL F 519     83.642  72.729  25.437  1.00  38.27     6
ATOM  13168  C   VAL F 519     84.369  69.441  23.568  1.00  21.64     6
ATOM  13169  O   VAL F 519     84.515  69.349  22.352  1.00  20.81     8
ATOM  13170  N   LEU F 520     83.916  68.443  24.313  1.00  24.74     7
ATOM  13171  CA  LEU F 520     83.568  67.149  23.736  1.00  27.17     6
ATOM  13172  CB  LEU F 520     83.281  66.185  24.865  1.00  54.99     6
ATOM  13173  CG  LEU F 520     84.606  65.976  25.578  1.00  58.04     6
ATOM  13174  CD1 LEU F 520     84.401  65.492  27.000  1.00  58.81     6
ATOM  13175  CD2 LEU F 520     85.417  65.024  24.731  1.00  59.39     6
ATOM  13176  C   LEU F 520     82.400  67.161  22.760  1.00  28.37     6
ATOM  13177  O   LEU F 520     81.813  68.203  22.476  1.00  28.71     8
ATOM  13178  N   PRO F 521     82.067  66.002  22.193  1.00  52.35     7
ATOM  13179  CD  PRO F 521     82.788  64.735  21.997  1.00 122.40     6
ATOM  13180  CA  PRO F 521     80.933  66.118  21.281  1.00  53.25     6
ATOM  13181  CB  PRO F 521     80.907  64.761  20.567  1.00 121.72     6
ATOM  13182  CG  PRO F 521     81.698  63.844  21.473  1.00 123.75     6
ATOM  13183  C   PRO F 521     79.616  66.460  21.986  1.00  53.55     6
ATOM  13184  O   PRO F 521     78.869  67.306  21.494  1.00  54.88     8
ATOM  13185  N   PRO F 522     79.335  65.838  23.164  1.00  59.07     7
ATOM  13186  CD  PRO F 522     80.237  64.894  23.854  1.00  86.85     6
ATOM  13187  CA  PRO F 522     78.118  66.037  23.976  1.00  58.98     6
ATOM  13188  CB  PRO F 522     78.411  65.230  25.240  1.00  86.62     6
ATOM  13189  CG  PRO F 522     79.293  64.138  24.743  1.00  87.27     6
ATOM  13190  C   PRO F 522     77.711  67.474  24.316  1.00  58.44     6
ATOM  13191  O   PRO F 522     76.787  67.687  25.092  1.00  58.06     8
ATOM  13192  N   ALA F 523     78.406  68.450  23.752  1.00  61.86     7
ATOM  13193  CA  ALA F 523     78.095  69.843  24.006  1.00  62.64     6
ATOM  13194  CB  ALA F 523     79.094  70.420  25.008  1.00  67.65     6
ATOM  13195  C   ALA F 523     78.183  70.574  22.667  1.00  63.46     6
ATOM  13196  O   ALA F 523     78.866  70.028  21.777  1.00  63.50     8
ATOM  13197  OXT ALA F 523     77.588  71.666  22.509  1.00  70.13     8
ATOM  13198  CB  ALA G 536     70.546  72.838  16.847  1.00 131.36     6
ATOM  13199  C   ALA G 536     71.436  74.311  18.678  1.00 131.87     6
ATOM  13200  O   ALA G 536     71.660  75.515  18.831  1.00 131.63     8
ATOM  13201  N   ALA G 536     69.463  75.007  17.368  1.00 133.22     7
ATOM  13202  CA  ALA G 536     70.180  73.839  17.954  1.00 132.70     6
ATOM  13203  N   THR G 537     72.248  73.359  19.125  1.00  95.20     7
ATOM  13204  CA  THR G 537     73.488  73.673  19.819  1.00  93.78     6
ATOM  13205  CB  THR G 537     73.607  72.841  21.103  1.00 182.64     6
ATOM  13206  OG1 THR G 537     72.380  72.939  21.840  1.00 183.52     8
ATOM  13207  CG2 THR G 537     74.752  73.355  21.969  1.00 182.66     6
```

236

```
ATOM  13208  C    THR G 537    74.683  73.396  18.893  1.00 92.06    6
ATOM  13209  O    THR G 537    75.787  73.071  19.345  1.00 92.52    8
ATOM  13210  N    SER G 538    74.437  73.542  17.590  1.00112.89    7
ATOM  13211  CA   SER G 538    75.440  73.328  16.547  1.00110.32    6
ATOM  13212  CB   SER G 538    74.779  73.283  15.160  1.00 35.57    6
ATOM  13213  OG   SER G 538    73.626  72.468  15.132  1.00 33.65    8
ATOM  13214  C    SER G 538    76.445  74.471  16.544  1.00109.45    6
ATOM  13215  O    SER G 538    77.627  74.282  16.819  1.00109.31    8
ATOM  13216  N    ASP G 539    75.936  75.656  16.217  1.00117.37    7
ATOM  13217  CA   ASP G 539    76.713  76.884  16.121  1.00116.70    6
ATOM  13218  CB   ASP G 539    76.184  77.922  17.114  1.00173.02    6
ATOM  13219  CG   ASP G 539    76.695  79.321  16.819  1.00175.38    6
ATOM  13220  OD1  ASP G 539    77.894  79.581  17.045  1.00175.93    8
ATOM  13221  OD2  ASP G 539    75.899  80.160  16.348  1.00177.00    8
ATOM  13222  C    ASP G 539    78.218  76.712  16.299  1.00114.94    6
ATOM  13223  O    ASP G 539    78.943  76.520  15.323  1.00115.19    8
ATOM  13224  N    LEU G 540    78.683  76.774  17.541  1.00 64.35    7
ATOM  13225  CA   LEU G 540    80.111  76.649  17.842  1.00 61.65    6
ATOM  13226  CB   LEU G 540    80.311  76.121  19.259  1.00 82.00    6
ATOM  13227  CG   LEU G 540    81.765  76.224  19.698  1.00 80.94    6
ATOM  13228  CD1  LEU G 540    81.986  77.620  20.251  1.00 81.27    6
ATOM  13229  CD2  LEU G 540    82.081  75.173  20.741  1.00 80.77    6
ATOM  13230  C    LEU G 540    80.907  75.764  16.884  1.00 60.56    6
ATOM  13231  O    LEU G 540    81.986  76.143  16.444  1.00 60.17    8
ATOM  13232  N    ASN G 541    80.376  74.582  16.586  1.00 66.76    7
ATOM  13233  CA   ASN G 541    81.032  73.640  15.686  1.00 65.78    6
ATOM  13234  CB   ASN G 541    80.039  72.588  15.216  1.00 75.75    6
ATOM  13235  CG   ASN G 541    79.680  71.614  16.306  1.00 74.86    6
ATOM  13236  OD1  ASN G 541    80.441  70.692  16.609  1.00 73.45    8
ATOM  13237  ND2  ASN G 541    78.520  71.820  16.919  1.00 75.26    7
ATOM  13238  C    ASN G 541    81.629  74.337  14.485  1.00 65.33    6
ATOM  13239  O    ASN G 541    82.767  74.080  14.114  1.00 66.45    8
ATOM  13240  N    ASP G 542    80.852  75.209  13.864  1.00 41.08    7
ATOM  13241  CA   ASP G 542    81.360  75.950  12.726  1.00 41.48    6
ATOM  13242  CB   ASP G 542    80.364  77.019  12.277  1.00 94.27    6
ATOM  13243  CG   ASP G 542    79.244  76.449  11.452  1.00 95.35    6
ATOM  13244  OD1  ASP G 542    79.533  75.643  10.543  1.00 94.76    8
ATOM  13245  OD2  ASP G 542    78.080  76.817  11.703  1.00 96.59    8
ATOM  13246  C    ASP G 542    82.693  76.612  13.087  1.00 41.73    6
ATOM  13247  O    ASP G 542    83.748  76.150  12.658  1.00 41.89    8
ATOM  13248  N    LEU G 543    82.654  77.685  13.874  1.00 77.19    7
ATOM  13249  CA   LEU G 543    83.881  78.371  14.256  1.00 77.54    6
ATOM  13250  CB   LEU G 543    83.709  79.050  15.620  1.00134.25    6
ATOM  13251  CG   LEU G 543    82.765  80.260  15.677  1.00135.12    6
ATOM  13252  CD1  LEU G 543    82.767  80.850  17.074  1.00135.70    6
ATOM  13253  CD2  LEU G 543    83.213  81.310  14.678  1.00135.15    6
ATOM  13254  C    LEU G 543    85.092  77.429  14.276  1.00 77.57    6
ATOM  13255  O    LEU G 543    86.180  77.807  13.841  1.00 76.88    8
ATOM  13256  N    TYR G 544    84.897  76.202  14.764  1.00 68.61    7
ATOM  13257  CA   TYR G 544    85.975  75.215  14.813  1.00 69.05    6
ATOM  13258  CB   TYR G 544    85.582  74.025  15.690  1.00 71.08    6
ATOM  13259  CG   TYR G 544    85.868  74.295  17.143  1.00 71.98    6
ATOM  13260  CD1  TYR G 544    84.989  73.902  18.141  1.00 72.88    6
ATOM  13261  CE1  TYR G 544    85.233  74.220  19.474  1.00 73.58    6
ATOM  13262  CD2  TYR G 544    87.005  75.003  17.515  1.00 72.46    6
ATOM  13263  CE2  TYR G 544    87.262  75.318  18.838  1.00 72.62    6
```

237

```
ATOM  13264  CZ   TYR G 544      86.378  74.927  19.810  1.00 73.30      6
ATOM  13265  OH   TYR G 544      86.658  75.226  21.119  1.00 74.86      8
ATOM  13266  C    TYR G 544      86.398  74.746  13.430  1.00 69.44      6
ATOM  13267  O    TYR G 544      87.586  74.615  13.157  1.00 70.07      8
ATOM  13268  N    ARG G 545      85.439  74.487  12.551  1.00 56.19      7
ATOM  13269  CA   ARG G 545      85.795  74.086  11.202  1.00 56.68      6
ATOM  13270  CB   ARG G 545      84.541  73.820  10.352  1.00106.98      6
ATOM  13271  CG   ARG G 545      83.823  75.091   9.908  1.00108.55      6
ATOM  13272  CD   ARG G 545      82.671  74.871   8.937  1.00109.66      6
ATOM  13273  NE   ARG G 545      82.266  76.145   8.344  1.00109.87      7
ATOM  13274  CZ   ARG G 545      81.233  76.300   7.526  1.00110.78      6
ATOM  13275  NH1  ARG G 545      80.482  75.258   7.195  1.00111.29      7
ATOM  13276  NH2  ARG G 545      80.958  77.498   7.029  1.00111.30      7
ATOM  13277  C    ARG G 545      86.565  75.298  10.647  1.00 56.31      6
ATOM  13278  O    ARG G 545      87.674  75.155  10.134  1.00 56.35      8
ATOM  13279  N    ARG G 546      85.978  76.491  10.783  1.00 67.98      7
ATOM  13280  CA   ARG G 546      86.588  77.732  10.304  1.00 68.08      6
ATOM  13281  CB   ARG G 546      85.836  78.939  10.847  1.00 83.15      6
ATOM  13282  CG   ARG G 546      84.614  79.331  10.071  1.00 84.94      6
ATOM  13283  CD   ARG G 546      84.037  80.602  10.665  1.00 87.67      6
ATOM  13284  NE   ARG G 546      85.082  81.578  10.987  1.00 90.57      7
ATOM  13285  CZ   ARG G 546      84.864  82.775  11.534  1.00 91.12      6
ATOM  13286  NH1  ARG G 546      83.628  83.168  11.831  1.00 91.08      7
ATOM  13287  NH2  ARG G 546      85.886  83.584  11.791  1.00 91.46      7
ATOM  13288  C    ARG G 546      88.031  77.820  10.755  1.00 67.70      6
ATOM  13289  O    ARG G 546      88.828  78.556  10.174  1.00 67.44      8
ATOM  13290  N    LEU G 547      88.341  77.073  11.812  1.00 84.34      7
ATOM  13291  CA   LEU G 547      89.677  77.011  12.393  1.00 83.70      6
ATOM  13292  CB   LEU G 547      89.580  76.874  13.913  1.00 76.64      6
ATOM  13293  CG   LEU G 547      90.889  76.614  14.661  1.00 76.80      6
ATOM  13294  CD1  LEU G 547      91.608  77.924  14.896  1.00 77.40      6
ATOM  13295  CD2  LEU G 547      90.603  75.952  15.985  1.00 76.94      6
ATOM  13296  C    LEU G 547      90.400  75.794  11.841  1.00 83.08      6
ATOM  13297  O    LEU G 547      91.332  75.898  11.045  1.00 83.25      8
ATOM  13298  N    ILE G 548      89.950  74.631  12.287  1.00 54.14      7
ATOM  13299  CA   ILE G 548      90.523  73.363  11.868  1.00 53.72      6
ATOM  13300  CB   ILE G 548      89.540  72.202  12.135  1.00 76.27      6
ATOM  13301  CG2  ILE G 548      90.237  70.884  11.902  1.00 75.88      6
ATOM  13302  CG1  ILE G 548      88.996  72.282  13.569  1.00 75.82      6
ATOM  13303  CD1  ILE G 548      90.056  72.520  14.639  1.00 75.63      6
ATOM  13304  C    ILE G 548      90.911  73.352  10.391  1.00 53.09      6
ATOM  13305  O    ILE G 548      91.976  72.862  10.039  1.00 52.98      8
ATOM  13306  N    ASN G 549      90.050  73.892   9.533  1.00131.40      7
ATOM  13307  CA   ASN G 549      90.325  73.931   8.096  1.00131.28      6
ATOM  13308  CB   ASN G 549      89.021  74.162   7.300  1.00 74.52      6
ATOM  13309  CG   ASN G 549      88.071  72.951   7.320  1.00 73.67      6
ATOM  13310  OD1  ASN G 549      86.958  73.014   6.783  1.00 72.98      8
ATOM  13311  ND2  ASN G 549      88.506  71.856   7.932  1.00 72.43      7
ATOM  13312  C    ASN G 549      91.348  75.024   7.746  1.00131.21      6
ATOM  13313  O    ASN G 549      92.219  74.820   6.897  1.00131.77      8
ATOM  13314  N    ARG G 550      91.241  76.178   8.405  1.00 46.50      7
ATOM  13315  CA   ARG G 550      92.141  77.307   8.166  1.00 46.38      6
ATOM  13316  CB   ARG G 550      91.635  78.564   8.871  1.00133.91      6
ATOM  13317  CG   ARG G 550      90.706  79.418   8.036  1.00135.97      6
ATOM  13318  CD   ARG G 550      91.446  80.080   6.888  1.00137.05      6
ATOM  13319  NE   ARG G 550      90.559  80.933   6.102  1.00138.25      7
```

238

```
ATOM  13320  CZ   ARG G 550      90.940  81.628   5.037  1.00138.54     6
ATOM  13321  NH1  ARG G 550      92.199  81.577   4.622  1.00139.13     7
ATOM  13322  NH2  ARG G 550      90.058  82.373   4.382  1.00138.59     7
ATOM  13323  C    ARG G 550      93.533  77.004   8.655  1.00 45.82     6
ATOM  13324  O    ARG G 550      94.505  77.441   8.054  1.00 45.25     8
ATOM  13325  N    ASN G 551      93.622  76.266   9.758  1.00 60.10     7
ATOM  13326  CA   ASN G 551      94.910  75.894  10.327  1.00 61.10     6
ATOM  13327  CB   ASN G 551      94.710  75.198  11.680  1.00 37.67     6
ATOM  13328  CG   ASN G 551      96.031  74.889  12.395  1.00 36.35     6
ATOM  13329  OD1  ASN G 551      96.508  73.748  12.391  1.00 35.15     8
ATOM  13330  ND2  ASN G 551      96.624  75.908  13.013  1.00 35.68     7
ATOM  13331  C    ASN G 551      95.614  74.966   9.339  1.00 63.12     6
ATOM  13332  O    ASN G 551      96.783  74.615   9.516  1.00 63.81     8
ATOM  13333  N    ASN G 552      94.891  74.579   8.290  1.00 69.42     7
ATOM  13334  CA   ASN G 552      95.436  73.705   7.256  1.00 70.97     6
ATOM  13335  CB   ASN G 552      94.442  72.591   6.906  1.00117.93     6
ATOM  13336  CG   ASN G 552      94.372  71.515   7.976  1.00118.17     6
ATOM  13337  OD1  ASN G 552      95.388  70.926   8.352  1.00118.04     8
ATOM  13338  ND2  ASN G 552      93.169  71.248   8.467  1.00118.44     7
ATOM  13339  C    ASN G 552      95.805  74.486   6.003  1.00 71.92     6
ATOM  13340  O    ASN G 552      96.810  74.186   5.368  1.00 71.09     8
ATOM  13341  N    ARG G 553      94.998  75.484   5.642  1.00115.12     7
ATOM  13342  CA   ARG G 553      95.306  76.297   4.467  1.00116.95     6
ATOM  13343  CB   ARG G 553      94.268  77.404   4.259  1.00201.34     6
ATOM  13344  CG   ARG G 553      93.017  76.966   3.510  1.00204.50     6
ATOM  13345  CD   ARG G 553      92.387  78.151   2.778  1.00207.23     6
ATOM  13346  NE   ARG G 553      91.118  77.808   2.136  1.00208.87     7
ATOM  13347  CZ   ARG G 553      90.443  78.621   1.327  1.00208.87     6
ATOM  13348  NH1  ARG G 553      90.916  79.831   1.051  1.00208.87     7
ATOM  13349  NH2  ARG G 553      89.291  78.229   0.797  1.00208.87     7
ATOM  13350  C    ARG G 553      96.686  76.922   4.657  1.00116.81     6
ATOM  13351  O    ARG G 553      97.207  77.597   3.767  1.00116.82     8
ATOM  13352  N    LEU G 554      97.259  76.702   5.839  1.00 77.44     7
ATOM  13353  CA   LEU G 554      98.590  77.188   6.173  1.00 76.30     6
ATOM  13354  CB   LEU G 554      98.541  78.218   7.299  1.00 53.28     6
ATOM  13355  CG   LEU G 554      97.775  79.499   6.949  1.00 51.92     6
ATOM  13356  CD1  LEU G 554      98.280  80.623   7.847  1.00 51.49     6
ATOM  13357  CD2  LEU G 554      97.969  79.863   5.470  1.00 50.96     6
ATOM  13358  C    LEU G 554      99.375  75.976   6.607  1.00 76.50     6
ATOM  13359  O    LEU G 554     100.577  76.036   6.812  1.00 76.74     8
ATOM  13360  N    LYS G 555      98.665  74.868   6.757  1.00106.94     7
ATOM  13361  CA   LYS G 555      99.287  73.615   7.128  1.00108.58     6
ATOM  13362  CB   LYS G 555      98.342  72.804   8.016  1.00 80.09     6
ATOM  13363  CG   LYS G 555      98.939  71.538   8.586  1.00 79.42     6
ATOM  13364  CD   LYS G 555     100.243  71.801   9.308  1.00 78.74     6
ATOM  13365  CE   LYS G 555     100.636  70.601  10.148  1.00 78.94     6
ATOM  13366  NZ   LYS G 555      99.639  70.349  11.234  1.00 77.84     7
ATOM  13367  C    LYS G 555      99.545  72.906   5.797  1.00110.46     6
ATOM  13368  O    LYS G 555     100.151  71.832   5.747  1.00111.14     8
ATOM  13369  N    LYS G 556      99.075  73.539   4.721  1.00135.11     7
ATOM  13370  CA   LYS G 556      99.233  73.037   3.357  1.00135.51     6
ATOM  13371  CB   LYS G 556      97.868  72.837   2.687  1.00142.13     6
ATOM  13372  CG   LYS G 556      97.028  71.713   3.290  1.00142.48     6
ATOM  13373  CD   LYS G 556      95.623  71.672   2.688  1.00142.59     6
ATOM  13374  CE   LYS G 556      94.741  70.623   3.364  1.00142.54     6
ATOM  13375  NZ   LYS G 556      93.332  70.658   2.864  1.00142.10     7
```

239

```
ATOM  13376  C    LYS G 556    100.049  74.048   2.560  1.00135.82     6
ATOM  13377  O    LYS G 556    100.940  73.674   1.801  1.00136.26     8
ATOM  13378  N    LEU G 557     99.737  75.330   2.731  1.00 76.16     7
ATOM  13379  CA   LEU G 557    100.470  76.384   2.040  1.00 77.22     6
ATOM  13380  CB   LEU G 557     99.564  77.602   1.785  1.00 59.29     6
ATOM  13381  CG   LEU G 557    100.192  78.906   1.253  1.00 58.84     6
ATOM  13382  CD1  LEU G 557    101.043  78.626   0.034  1.00 57.92     6
ATOM  13383  CD2  LEU G 557     99.105  79.909   0.923  1.00 58.61     6
ATOM  13384  C    LEU G 557    101.679  76.772   2.893  1.00 78.63     6
ATOM  13385  O    LEU G 557    101.893  77.940   3.218  1.00 79.24     8
ATOM  13386  N    LEU G 558    102.464  75.769   3.265  1.00169.46     7
ATOM  13387  CA   LEU G 558    103.656  75.990   4.070  1.00171.40     6
ATOM  13388  CB   LEU G 558    103.289  76.168   5.547  1.00136.45     6
ATOM  13389  CG   LEU G 558    103.083  77.619   5.980  1.00135.88     6
ATOM  13390  CD1  LEU G 558    102.785  77.695   7.467  1.00136.62     6
ATOM  13391  CD2  LEU G 558    104.343  78.398   5.665  1.00134.39     6
ATOM  13392  C    LEU G 558    104.650  74.852   3.907  1.00172.39     6
ATOM  13393  O    LEU G 558    105.807  75.084   3.554  1.00173.07     8
ATOM  13394  N    ALA G 559    104.204  73.624   4.161  1.00188.38     7
ATOM  13395  CA   ALA G 559    105.076  72.467   4.008  1.00189.87     6
ATOM  13396  CB   ALA G 559    104.358  71.196   4.429  1.00 39.70     6
ATOM  13397  C    ALA G 559    105.446  72.403   2.534  1.00190.61     6
ATOM  13398  O    ALA G 559    106.343  71.660   2.133  1.00191.14     8
ATOM  13399  N    GLN G 560    104.733  73.196   1.738  1.00128.76     7
ATOM  13400  CA   GLN G 560    104.964  73.284   0.302  1.00128.89     6
ATOM  13401  CB   GLN G 560    103.797  72.657  -0.469  1.00121.79     6
ATOM  13402  CG   GLN G 560    103.586  71.179  -0.175  1.00122.17     6
ATOM  13403  CD   GLN G 560    102.593  70.532  -1.118  1.00122.43     6
ATOM  13404  OE1  GLN G 560    101.448  70.964  -1.221  1.00123.35     8
ATOM  13405  NE2  GLN G 560    103.028  69.487  -1.810  1.00122.60     7
ATOM  13406  C    GLN G 560    105.134  74.746  -0.110  1.00128.84     6
ATOM  13407  O    GLN G 560    104.984  75.654   0.714  1.00129.24     8
ATOM  13408  N    GLY G 561    105.451  74.957  -1.385  1.00190.26     7
ATOM  13409  CA   GLY G 561    105.647  76.296  -1.916  1.00190.02     6
ATOM  13410  C    GLY G 561    104.978  77.392  -1.114  1.00189.66     6
ATOM  13411  O    GLY G 561    103.755  77.532  -1.131  1.00190.29     8
ATOM  13412  N    ALA G 562    105.787  78.174  -0.411  1.00119.23     7
ATOM  13413  CA   ALA G 562    105.265  79.251   0.412  1.00117.96     6
ATOM  13414  CB   ALA G 562    105.760  79.081   1.844  1.00182.56     6
ATOM  13415  C    ALA G 562    105.647  80.634  -0.110  1.00117.28     6
ATOM  13416  O    ALA G 562    106.755  81.112   0.132  1.00117.09     8
ATOM  13417  N    PRO G 563    104.730  81.294  -0.836  1.00168.71     7
ATOM  13418  CD   PRO G 563    103.438  80.757  -1.294  1.00 81.97     6
ATOM  13419  CA   PRO G 563    104.956  82.630  -1.396  1.00168.36     6
ATOM  13420  CB   PRO G 563    103.751  82.823  -2.315  1.00 82.67     6
ATOM  13421  CG   PRO G 563    102.696  82.014  -1.664  1.00 81.98     6
ATOM  13422  C    PRO G 563    105.061  83.727  -0.340  1.00167.47     6
ATOM  13423  O    PRO G 563    104.831  84.899  -0.632  1.00167.60     8
ATOM  13424  N    GLU G 564    105.412  83.338   0.882  1.00 84.57     7
ATOM  13425  CA   GLU G 564    105.551  84.279   1.993  1.00 82.85     6
ATOM  13426  CB   GLU G 564    106.877  85.042   1.902  1.00131.49     6
ATOM  13427  CG   GLU G 564    107.064  86.063   3.023  1.00130.94     6
ATOM  13428  CD   GLU G 564    108.468  86.634   3.082  1.00131.41     6
ATOM  13429  OE1  GLU G 564    108.935  87.177   2.059  1.00131.51     8
ATOM  13430  OE2  GLU G 564    109.102  86.542   4.155  1.00131.61     8
ATOM  13431  C    GLU G 564    104.402  85.276   2.069  1.00 81.57     6
```

240

```
ATOM   13432  O    GLU G 564     103.463  85.077   2.832  1.00 81.23      8
ATOM   13433  N    ILE G 565     104.485  86.351   1.288  1.00 64.47      7
ATOM   13434  CA   ILE G 565     103.437  87.359   1.277  1.00 63.84      6
ATOM   13435  CB   ILE G 565     103.437  88.160  -0.035  1.00111.42      6
ATOM   13436  CG2  ILE G 565     102.234  89.085  -0.081  1.00111.05      6
ATOM   13437  CG1  ILE G 565     104.728  88.969  -0.143  1.00111.53      6
ATOM   13438  CD1  ILE G 565     104.949  89.930   1.017  1.00111.89      6
ATOM   13439  C    ILE G 565     102.087  86.682   1.449  1.00 64.00      6
ATOM   13440  O    ILE G 565     101.221  87.189   2.151  1.00 63.89      8
ATOM   13441  N    ILE G 566     101.916  85.526   0.819  1.00179.33      7
ATOM   13442  CA   ILE G 566     100.668  84.792   0.940  1.00180.03      6
ATOM   13443  CB   ILE G 566     100.147  84.363  -0.450  1.00 75.12      6
ATOM   13444  CG2  ILE G 566      98.889  83.512  -0.315  1.00 75.35      6
ATOM   13445  CG1  ILE G 566      99.797  85.609  -1.266  1.00 74.49      6
ATOM   13446  CD1  ILE G 566      98.646  86.422  -0.679  1.00 73.42      6
ATOM   13447  C    ILE G 566     100.833  83.587   1.870  1.00180.68      6
ATOM   13448  O    ILE G 566     100.608  82.437   1.498  1.00181.17      8
ATOM   13449  N    ILE G 567     101.247  83.895   3.093  1.00 98.19      7
ATOM   13450  CA   ILE G 567     101.444  82.939   4.179  1.00 98.23      6
ATOM   13451  CB   ILE G 567     102.750  82.063   4.003  1.00 43.04      6
ATOM   13452  CG2  ILE G 567     103.968  82.704   4.664  1.00 42.72      6
ATOM   13453  CG1  ILE G 567     102.533  80.692   4.646  1.00 41.40      6
ATOM   13454  CD1  ILE G 567     102.184  80.738   6.100  1.00 40.12      6
ATOM   13455  C    ILE G 567     101.560  83.890   5.365  1.00 99.77      6
ATOM   13456  O    ILE G 567     101.225  83.556   6.501  1.00 99.67      8
ATOM   13457  N    ARG G 568     102.019  85.101   5.059  1.00204.23      7
ATOM   13458  CA   ARG G 568     102.168  86.161   6.046  1.00205.67      6
ATOM   13459  CB   ARG G 568     103.064  87.285   5.509  1.00199.88      6
ATOM   13460  CG   ARG G 568     104.496  86.884   5.172  1.00201.87      6
ATOM   13461  CD   ARG G 568     105.309  86.559   6.417  1.00202.96      6
ATOM   13462  NE   ARG G 568     106.711  86.302   6.095  1.00204.01      7
ATOM   13463  CZ   ARG G 568     107.638  85.983   6.993  1.00204.35      6
ATOM   13464  NH1  ARG G 568     107.316  85.880   8.276  1.00205.26      7
ATOM   13465  NH2  ARG G 568     108.889  85.769   6.610  1.00203.67      7
ATOM   13466  C    ARG G 568     100.771  86.716   6.287  1.00205.52      6
ATOM   13467  O    ARG G 568     100.192  86.521   7.356  1.00205.56      8
ATOM   13468  N    ASN G 569     100.236  87.401   5.277  1.00172.62      7
ATOM   13469  CA   ASN G 569      98.904  87.986   5.370  1.00172.19      6
ATOM   13470  CB   ASN G 569      98.698  89.053   4.284  1.00144.53      6
ATOM   13471  CG   ASN G 569      98.178  88.475   2.983  1.00144.70      6
ATOM   13472  OD1  ASN G 569      98.792  87.589   2.394  1.00143.89      8
ATOM   13473  ND2  ASN G 569      97.036  88.978   2.528  1.00144.81      7
ATOM   13474  C    ASN G 569      97.859  86.885   5.228  1.00171.70      6
ATOM   13475  O    ASN G 569      96.660  87.155   5.133  1.00172.20      8
ATOM   13476  N    GLU G 570      98.326  85.640   5.207  1.00 59.76      7
ATOM   13477  CA   GLU G 570      97.435  84.490   5.100  1.00 58.89      6
ATOM   13478  CB   GLU G 570      98.068  83.409   4.220  1.00155.66      6
ATOM   13479  CG   GLU G 570      97.969  83.685   2.732  1.00156.86      6
ATOM   13480  CD   GLU G 570      96.643  83.254   2.142  1.00157.48      6
ATOM   13481  OE1  GLU G 570      95.591  83.672   2.667  1.00158.14      8
ATOM   13482  OE2  GLU G 570      96.651  82.496   1.150  1.00157.84      8
ATOM   13483  C    GLU G 570      97.191  83.944   6.497  1.00 57.95      6
ATOM   13484  O    GLU G 570      96.143  83.369   6.777  1.00 57.43      8
ATOM   13485  N    LYS G 571      98.181  84.150   7.364  1.00 91.40      7
ATOM   13486  CA   LYS G 571      98.144  83.700   8.755  1.00 90.81      6
ATOM   13487  CB   LYS G 571      99.574  83.532   9.271  1.00152.58      6
```

241

```
ATOM  13488  CG   LYS G 571      99.697  82.781  10.582  1.00153.34      6
ATOM  13489  CD   LYS G 571     101.152  82.416  10.836  1.00154.51      6
ATOM  13490  CE   LYS G 571     101.320  81.590  12.097  1.00154.99      6
ATOM  13491  NZ   LYS G 571     101.051  82.367  13.334  1.00155.02      7
ATOM  13492  C    LYS G 571      97.378  84.684   9.640  1.00 89.48      6
ATOM  13493  O    LYS G 571      97.029  84.368  10.777  1.00 88.42      8
ATOM  13494  N    ARG G 572      97.131  85.879   9.110  1.00 94.32      7
ATOM  13495  CA   ARG G 572      96.374  86.893   9.825  1.00 93.38      6
ATOM  13496  CB   ARG G 572      96.379  88.210   9.061  1.00 83.79      6
ATOM  13497  CG   ARG G 572      95.653  88.124   7.723  1.00 84.66      6
ATOM  13498  CD   ARG G 572      95.120  89.481   7.279  1.00 86.66      6
ATOM  13499  NE   ARG G 572      93.890  89.858   7.979  1.00 88.48      7
ATOM  13500  CZ   ARG G 572      93.401  91.100   8.048  1.00 89.00      6
ATOM  13501  NH1  ARG G 572      94.034  92.114   7.463  1.00 89.06      7
ATOM  13502  NH2  ARG G 572      92.271  91.332   8.707  1.00 89.00      7
ATOM  13503  C    ARG G 572      94.949  86.360   9.853  1.00 93.21      6
ATOM  13504  O    ARG G 572      93.986  87.129   9.879  1.00 93.59      8
ATOM  13505  N    MET G 573      94.826  85.036   9.823  1.00126.59      7
ATOM  13506  CA   MET G 573      93.528  84.381   9.825  1.00125.83      6
ATOM  13507  CB   MET G 573      93.123  84.034   8.391  1.00190.37      6
ATOM  13508  CG   MET G 573      93.054  85.242   7.469  1.00192.13      6
ATOM  13509  SD   MET G 573      92.546  84.815   5.797  1.00193.34     16
ATOM  13510  CE   MET G 573      94.118  84.474   5.040  1.00193.04      6
ATOM  13511  C    MET G 573      93.488  83.128  10.695  1.00124.08      6
ATOM  13512  O    MET G 573      92.455  82.818  11.276  1.00123.42      8
ATOM  13513  N    LEU G 574      94.599  82.402  10.787  1.00 97.74      7
ATOM  13514  CA   LEU G 574      94.617  81.199  11.616  1.00 95.67      6
ATOM  13515  CB   LEU G 574      96.014  80.610  11.747  1.00 46.39      6
ATOM  13516  CG   LEU G 574      95.974  79.591  12.883  1.00 44.93      6
ATOM  13517  CD1  LEU G 574      94.919  78.560  12.538  1.00 44.33      6
ATOM  13518  CD2  LEU G 574      97.321  78.931  13.096  1.00 45.55      6
ATOM  13519  C    LEU G 574      94.166  81.567  13.002  1.00 94.64      6
ATOM  13520  O    LEU G 574      93.137  81.104  13.480  1.00 94.77      8
ATOM  13521  N    GLN G 575      94.984  82.382  13.654  1.00113.35      7
ATOM  13522  CA   GLN G 575      94.683  82.846  14.991  1.00112.36      6
ATOM  13523  CB   GLN G 575      95.720  83.872  15.441  1.00 73.05      6
ATOM  13524  CG   GLN G 575      95.247  84.677  16.625  1.00 72.56      6
ATOM  13525  CD   GLN G 575      96.168  85.805  16.985  1.00 72.65      6
ATOM  13526  OE1  GLN G 575      97.267  85.581  17.485  1.00 74.21      8
ATOM  13527  NE2  GLN G 575      95.728  87.034  16.729  1.00 71.99      7
ATOM  13528  C    GLN G 575      93.304  83.495  14.987  1.00111.62      6
ATOM  13529  O    GLN G 575      92.567  83.415  15.968  1.00111.83      8
ATOM  13530  N    GLU G 576      92.969  84.138  13.871  1.00 72.08      7
ATOM  13531  CA   GLU G 576      91.690  84.813  13.715  1.00 70.28      6
ATOM  13532  CB   GLU G 576      91.587  85.392  12.309  1.00 94.12      6
ATOM  13533  CG   GLU G 576      90.913  86.732  12.248  1.00 94.40      6
ATOM  13534  CD   GLU G 576      91.881  87.823  11.883  1.00 94.32      6
ATOM  13535  OE1  GLU G 576      92.966  87.871  12.500  1.00 94.33      8
ATOM  13536  OE2  GLU G 576      91.557  88.631  10.986  1.00 95.06      8
ATOM  13537  C    GLU G 576      90.545  83.828  13.950  1.00 69.83      6
ATOM  13538  O    GLU G 576      89.420  84.225  14.253  1.00 69.87      8
ATOM  13539  N    ALA G 577      90.846  82.541  13.793  1.00 73.59      7
ATOM  13540  CA   ALA G 577      89.867  81.476  13.992  1.00 72.77      6
ATOM  13541  CB   ALA G 577      90.053  80.378  12.956  1.00 96.82      6
ATOM  13542  C    ALA G 577      90.059  80.916  15.388  1.00 72.09      6
ATOM  13543  O    ALA G 577      89.737  79.760  15.663  1.00 72.23      8
```

242

```
ATOM  13544  N   VAL G 578    90.623  81.754  16.250  1.00 74.31    7
ATOM  13545  CA  VAL G 578    90.854  81.437  17.654  1.00 74.39    6
ATOM  13546  CB  VAL G 578    92.324  81.106  17.942  1.00 74.55    6
ATOM  13547  CG1 VAL G 578    92.443  80.437  19.311  1.00 73.52    6
ATOM  13548  CG2 VAL G 578    92.875  80.215  16.850  1.00 73.93    6
ATOM  13549  C   VAL G 578    90.496  82.751  18.322  1.00 73.71    6
ATOM  13550  O   VAL G 578    89.795  82.790  19.333  1.00 72.55    8
ATOM  13551  N   ASP G 579    90.985  83.828  17.714  1.00 50.02    7
ATOM  13552  CA  ASP G 579    90.714  85.186  18.161  1.00 51.25    6
ATOM  13553  CB  ASP G 579    91.654  86.179  17.462  1.00 90.20    6
ATOM  13554  CG  ASP G 579    93.040  86.228  18.088  1.00 90.68    6
ATOM  13555  OD1 ASP G 579    93.504  85.186  18.597  1.00 91.76    8
ATOM  13556  OD2 ASP G 579    93.670  87.311  18.051  1.00 90.12    8
ATOM  13557  C   ASP G 579    89.274  85.455  17.737  1.00 51.80    6
ATOM  13558  O   ASP G 579    88.894  86.592  17.413  1.00 51.23    8
ATOM  13559  N   ALA G 580    88.500  84.370  17.720  1.00 91.07    7
ATOM  13560  CA  ALA G 580    87.089  84.362  17.351  1.00 92.32    6
ATOM  13561  CB  ALA G 580    86.935  84.093  15.850  1.00107.39    6
ATOM  13562  C   ALA G 580    86.424  83.247  18.161  1.00 93.13    6
ATOM  13563  O   ALA G 580    85.423  83.470  18.846  1.00 93.04    8
ATOM  13564  N   VAL G 581    86.991  82.045  18.074  1.00139.52    7
ATOM  13565  CA  VAL G 581    86.478  80.904  18.820  1.00139.99    6
ATOM  13566  CB  VAL G 581    87.451  79.722  18.766  1.00 30.99    6
ATOM  13567  CG1 VAL G 581    87.210  78.783  19.913  1.00 30.67    6
ATOM  13568  CG2 VAL G 581    87.266  78.980  17.485  1.00 30.60    6
ATOM  13569  C   VAL G 581    86.326  81.339  20.261  1.00141.61    6
ATOM  13570  O   VAL G 581    85.299  81.088  20.891  1.00142.75    8
ATOM  13571  N   ILE G 582    87.362  81.992  20.778  1.00 51.60    7
ATOM  13572  CA  ILE G 582    87.338  82.489  22.145  1.00 51.68    6
ATOM  13573  CB  ILE G 582    88.734  82.902  22.568  1.00 65.92    6
ATOM  13574  CG2 ILE G 582    88.852  82.838  24.071  1.00 66.06    6
ATOM  13575  CG1 ILE G 582    89.744  81.937  21.949  1.00 67.19    6
ATOM  13576  CD1 ILE G 582    91.169  82.363  22.122  1.00 69.30    6
ATOM  13577  C   ILE G 582    86.383  83.686  22.181  1.00 52.28    6
ATOM  13578  O   ILE G 582    85.562  83.837  21.273  1.00 51.26    8
ATOM  13579  N   ASP G 583    86.479  84.523  23.216  1.00131.06    7
ATOM  13580  CA  ASP G 583    85.603  85.691  23.346  1.00132.06    6
ATOM  13581  CB  ASP G 583    86.151  86.678  24.402  1.00 83.72    6
ATOM  13582  CG  ASP G 583    86.781  85.974  25.620  1.00 83.81    6
ATOM  13583  OD1 ASP G 583    86.234  84.953  26.086  1.00 82.85    8
ATOM  13584  OD2 ASP G 583    87.826  86.450  26.126  1.00 83.67    8
ATOM  13585  C   ASP G 583    85.466  86.397  21.990  1.00133.07    6
ATOM  13586  O   ASP G 583    86.054  87.457  21.771  1.00133.98    8
ATOM  13587  N   ASN G 584    84.684  85.793  21.091  1.00 37.65    7
ATOM  13588  CA  ASN G 584    84.455  86.310  19.743  1.00 37.79    6
ATOM  13589  CB  ASN G 584    83.503  85.395  18.987  1.00 75.68    6
ATOM  13590  CG  ASN G 584    83.340  85.801  17.541  1.00 76.20    6
ATOM  13591  OD1 ASN G 584    83.192  86.982  17.229  1.00 75.74    8
ATOM  13592  ND2 ASN G 584    83.350  84.819  16.646  1.00 76.61    7
ATOM  13593  C   ASN G 584    83.883  87.720  19.741  1.00 38.41    6
ATOM  13594  O   ASN G 584    82.706  87.920  19.452  1.00 39.07    8
ATOM  13595  N   GLY G 585    84.724  88.696  20.058  1.00115.74    7
ATOM  13596  CA  GLY G 585    84.278  90.074  20.082  1.00118.24    6
ATOM  13597  C   GLY G 585    85.223  90.972  19.314  1.00119.97    6
ATOM  13598  O   GLY G 585    85.832  91.871  19.890  1.00120.15    8
ATOM  13599  N   ARG G 586    85.356  90.714  18.015  1.00118.75    7
```

243

```
ATOM    13600  CA   ARG G 586      86.222  91.505  17.140  1.00120.54      6
ATOM    13601  CB   ARG G 586      87.639  90.906  17.073  1.00106.36      6
ATOM    13602  CG   ARG G 586      88.602  91.620  16.099  1.00107.18      6
ATOM    13603  CD   ARG G 586      89.992  90.977  16.115  1.00107.40      6
ATOM    13604  NE   ARG G 586      90.897  91.561  15.126  1.00107.01      7
ATOM    13605  CZ   ARG G 586      92.177  91.220  14.984  1.00107.15      6
ATOM    13606  NH1  ARG G 586      92.715  90.294  15.771  1.00106.98      7
ATOM    13607  NH2  ARG G 586      92.924  91.800  14.051  1.00106.67      7
ATOM    13608  C    ARG G 586      85.612  91.529  15.747  1.00120.97      6
ATOM    13609  O    ARG G 586      84.997  90.555  15.325  1.00121.83      8
ATOM    13610  N    ARG G 587      85.788  92.648  15.050  1.00104.27      7
ATOM    13611  CA   ARG G 587      85.271  92.843  13.701  1.00104.71      6
ATOM    13612  CB   ARG G 587      86.153  92.109  12.676  1.00114.96      6
ATOM    13613  CG   ARG G 587      86.009  90.585  12.626  1.00115.33      6
ATOM    13614  CD   ARG G 587      87.070  89.850  13.451  1.00115.65      6
ATOM    13615  NE   ARG G 587      86.981  88.399  13.267  1.00116.31      7
ATOM    13616  CZ   ARG G 587      87.703  87.500  13.932  1.00116.40      6
ATOM    13617  NH1  ARG G 587      88.587  87.884  14.845  1.00116.24      7
ATOM    13618  NH2  ARG G 587      87.538  86.209  13.684  1.00116.24      7
ATOM    13619  C    ARG G 587      83.807  92.439  13.508  1.00104.86      6
ATOM    13620  O    ARG G 587      83.000  93.239  13.032  1.00105.52      8
ATOM    13621  N    GLY G 588      83.476  91.204  13.878  1.00147.52      7
ATOM    13622  CA   GLY G 588      82.123  90.693  13.742  1.00146.07      6
ATOM    13623  C    GLY G 588      82.143  89.457  12.867  1.00144.98      6
ATOM    13624  O    GLY G 588      82.038  89.563  11.647  1.00145.06      8
ATOM    13625  N    SER G 589      82.271  88.284  13.480  1.00 77.21      7
ATOM    13626  CA   SER G 589      82.338  87.037  12.718  1.00 76.00      6
ATOM    13627  CB   SER G 589      83.639  86.302  13.050  1.00 56.13      6
ATOM    13628  OG   SER G 589      83.756  86.073  14.445  1.00 55.41      8
ATOM    13629  C    SER G 589      81.160  86.070  12.868  1.00 75.43      6
ATOM    13630  O    SER G 589      81.151  85.207  13.751  1.00 75.27      8
ATOM    13631  N    PRO G 590      80.146  86.209  11.996  1.00 65.35      7
ATOM    13632  CD   PRO G 590      79.925  87.427  11.189  1.00140.99      6
ATOM    13633  CA   PRO G 590      78.944  85.368  11.990  1.00 65.07      6
ATOM    13634  CB   PRO G 590      77.860  86.350  11.568  1.00140.82      6
ATOM    13635  CG   PRO G 590      78.572  87.164  10.539  1.00140.67      6
ATOM    13636  C    PRO G 590      79.054  84.193  11.015  1.00 64.88      6
ATOM    13637  O    PRO G 590      79.968  83.371  11.099  1.00 64.41      8
ATOM    13638  N    VAL G 591      78.096  84.132  10.095  1.00120.37      7
ATOM    13639  CA   VAL G 591      78.040  83.099   9.071  1.00120.69      6
ATOM    13640  CB   VAL G 591      77.004  81.994   9.424  1.00 83.72      6
ATOM    13641  CG1  VAL G 591      75.593  82.547   9.375  1.00 83.05      6
ATOM    13642  CG2  VAL G 591      77.144  80.835   8.474  1.00 83.74      6
ATOM    13643  C    VAL G 591      77.632  83.792   7.775  1.00120.85      6
ATOM    13644  O    VAL G 591      77.204  84.948   7.796  1.00120.97      8
ATOM    13645  N    THR G 592      77.770  83.088   6.655  1.00117.86      7
ATOM    13646  CA   THR G 592      77.432  83.631   5.339  1.00117.55      6
ATOM    13647  CB   THR G 592      75.935  83.397   4.992  1.00124.78      6
ATOM    13648  OG1  THR G 592      75.108  83.952   6.023  1.00125.06      8
ATOM    13649  CG2  THR G 592      75.641  81.905   4.844  1.00123.79      6
ATOM    13650  C    THR G 592      77.740  85.128   5.222  1.00117.06      6
ATOM    13651  O    THR G 592      76.832  85.958   5.169  1.00117.05      8
ATOM    13652  N    ASN G 593      79.030  85.459   5.185  1.00166.11      7
ATOM    13653  CA   ASN G 593      79.479  86.845   5.066  1.00166.57      6
ATOM    13654  CB   ASN G 593      80.903  86.986   5.615  1.00110.57      6
ATOM    13655  CG   ASN G 593      80.951  86.946   7.131  1.00110.95      6
```

244

```
ATOM  13656  OD1 ASN G 593      80.512  87.881   7.806  1.00110.65       8
ATOM  13657  ND2 ASN G 593      81.484  85.858   7.676  1.00111.38       7
ATOM  13658  C   ASN G 593      79.461  87.285   3.603  1.00166.40       6
ATOM  13659  O   ASN G 593      79.396  86.454   2.698  1.00167.00       8
ATOM  13660  N   PRO G 594      79.511  88.605   3.352  0.00 83.88       7
ATOM  13661  CD  PRO G 594      79.851  89.122   2.011  0.00 83.46       6
ATOM  13662  CA  PRO G 594      79.604  89.677   4.348  0.00 83.09       6
ATOM  13663  CB  PRO G 594      80.494  90.695   3.658  0.00 83.02       6
ATOM  13664  CG  PRO G 594      79.994  90.620   2.253  0.00 83.14       6
ATOM  13665  C   PRO G 594      78.246  90.275   4.731  0.00 82.44       6
ATOM  13666  O   PRO G 594      78.135  90.983   5.732  0.00 82.37       8
ATOM  13667  N   GLY G 595      77.226  89.989   3.926  0.00 81.94       7
ATOM  13668  CA  GLY G 595      75.892  90.511   4.178  0.00 81.22       6
ATOM  13669  C   GLY G 595      75.498  90.623   5.639  0.00 80.87       6
ATOM  13670  O   GLY G 595      75.834  89.757   6.449  0.00 80.75       8
ATOM  13671  N   SER G 596      74.785  91.696   5.974  0.00 80.35       7
ATOM  13672  CA  SER G 596      74.330  91.933   7.342  0.00 79.99       6
ATOM  13673  CB  SER G 596      73.318  93.080   7.370  0.00 80.14       6
ATOM  13674  OG  SER G 596      72.193  92.787   6.560  0.00 80.12       8
ATOM  13675  C   SER G 596      73.690  90.666   7.897  0.00 79.81       6
ATOM  13676  O   SER G 596      73.007  89.944   7.170  0.00 79.83       8
ATOM  13677  N   GLU G 597      73.904  90.405   9.185  1.00122.38       7
ATOM  13678  CA  GLU G 597      73.364  89.205   9.815  1.00121.70       6
ATOM  13679  CB  GLU G 597      73.821  87.986   9.017  1.00 92.65       6
ATOM  13680  CG  GLU G 597      73.235  86.671   9.445  1.00 92.04       6
ATOM  13681  CD  GLU G 597      73.634  85.566   8.503  1.00 91.30       6
ATOM  13682  OE1 GLU G 597      74.853  85.364   8.315  1.00 90.02       8
ATOM  13683  OE2 GLU G 597      72.731  84.908   7.946  1.00 90.79       8
ATOM  13684  C   GLU G 597      73.828  89.086  11.269  1.00121.10       6
ATOM  13685  O   GLU G 597      74.678  89.856  11.721  1.00121.55       8
ATOM  13686  N   ARG G 598      73.269  88.120  11.995  1.00117.35       7
ATOM  13687  CA  ARG G 598      73.623  87.897  13.399  1.00116.12       6
ATOM  13688  CB  ARG G 598      72.471  87.210  14.133  1.00155.91       6
ATOM  13689  CG  ARG G 598      71.128  87.919  14.033  1.00157.25       6
ATOM  13690  CD  ARG G 598      70.044  87.035  14.628  1.00159.10       6
ATOM  13691  NE  ARG G 598      68.698  87.541  14.386  1.00160.81       7
ATOM  13692  CZ  ARG G 598      67.591  86.846  14.629  1.00161.53       6
ATOM  13693  NH1 ARG G 598      67.672  85.613  15.119  1.00161.89       7
ATOM  13694  NH2 ARG G 598      66.400  87.379  14.381  1.00161.59       7
ATOM  13695  C   ARG G 598      74.878  87.028  13.517  1.00114.07       6
ATOM  13696  O   ARG G 598      75.023  86.037  12.800  1.00114.47       8
ATOM  13697  N   PRO G 599      75.789  87.381  14.443  1.00 59.23       7
ATOM  13698  CD  PRO G 599      75.586  88.420  15.466  1.00 48.11       6
ATOM  13699  CA  PRO G 599      77.044  86.660  14.682  1.00 58.47       6
ATOM  13700  CB  PRO G 599      77.760  87.546  15.687  1.00 47.91       6
ATOM  13701  CG  PRO G 599      76.625  88.060  16.509  1.00 47.94       6
ATOM  13702  C   PRO G 599      76.793  85.259  15.211  1.00 58.22       6
ATOM  13703  O   PRO G 599      75.707  84.718  15.028  1.00 59.47       8
ATOM  13704  N   LEU G 600      77.784  84.668  15.869  1.00 48.10       7
ATOM  13705  CA  LEU G 600      77.619  83.314  16.378  1.00 47.99       6
ATOM  13706  CB  LEU G 600      78.587  82.386  15.666  1.00 54.05       6
ATOM  13707  CG  LEU G 600      78.820  82.837  14.226  1.00 54.55       6
ATOM  13708  CD1 LEU G 600      79.875  81.967  13.581  1.00 55.60       6
ATOM  13709  CD2 LEU G 600      77.524  82.773  13.452  1.00 53.38       6
ATOM  13710  C   LEU G 600      77.854  83.237  17.875  1.00 48.55       6
ATOM  13711  O   LEU G 600      78.329  84.189  18.490  1.00 48.30       8
```

```
ATOM  13712  N    ARG G 601     77.509  82.100  18.466  1.00  74.02      7
ATOM  13713  CA   ARG G 601     77.704  81.923  19.893  1.00  74.67      6
ATOM  13714  CB   ARG G 601     76.612  81.027  20.488  1.00  83.57      6
ATOM  13715  CG   ARG G 601     75.179  81.541  20.320  1.00  85.04      6
ATOM  13716  CD   ARG G 601     75.046  83.009  20.711  1.00  85.98      6
ATOM  13717  NE   ARG G 601     73.657  83.454  20.825  1.00  87.40      7
ATOM  13718  CZ   ARG G 601     73.293  84.735  20.853  1.00  88.26      6
ATOM  13719  NH1  ARG G 601     74.219  85.686  20.767  1.00  88.90      7
ATOM  13720  NH2  ARG G 601     72.013  85.072  20.980  1.00  88.70      7
ATOM  13721  C    ARG G 601     79.066  81.284  20.083  1.00  74.96      6
ATOM  13722  O    ARG G 601     79.223  80.076  19.954  1.00  75.24      8
ATOM  13723  N    SER G 602     80.061  82.103  20.377  1.00  52.21      7
ATOM  13724  CA   SER G 602     81.406  81.588  20.567  1.00  53.74      6
ATOM  13725  CB   SER G 602     82.416  82.736  20.484  1.00113.06      6
ATOM  13726  OG   SER G 602     81.981  83.859  21.230  1.00113.37      8
ATOM  13727  C    SER G 602     81.556  80.842  21.890  1.00  54.78      6
ATOM  13728  O    SER G 602     80.597  80.732  22.651  1.00  55.37      8
ATOM  13729  N    LEU G 603     82.762  80.336  22.152  1.00  68.31      7
ATOM  13730  CA   LEU G 603     83.054  79.604  23.380  1.00  69.95      6
ATOM  13731  CB   LEU G 603     84.533  79.211  23.436  1.00  66.38      6
ATOM  13732  CG   LEU G 603     84.814  77.704  23.484  1.00  67.10      6
ATOM  13733  CD1  LEU G 603     84.313  77.098  22.211  1.00  66.06      6
ATOM  13734  CD2  LEU G 603     86.297  77.407  23.628  1.00  67.79      6
ATOM  13735  C    LEU G 603     82.709  80.397  24.627  1.00  71.38      6
ATOM  13736  O    LEU G 603     82.408  79.820  25.658  1.00  72.13      8
ATOM  13737  N    THR G 604     82.750  81.719  24.534  1.00131.25      7
ATOM  13738  CA   THR G 604     82.440  82.563  25.682  1.00132.27      6
ATOM  13739  CB   THR G 604     83.017  83.968  25.495  1.00142.86      6
ATOM  13740  OG1  THR G 604     84.421  83.864  25.245  1.00143.74      8
ATOM  13741  CG2  THR G 604     82.790  84.811  26.738  1.00142.56      6
ATOM  13742  C    THR G 604     80.941  82.673  25.949  1.00132.56      6
ATOM  13743  O    THR G 604     80.528  83.008  27.057  1.00133.04      8
ATOM  13744  N    ASP G 605     80.125  82.403  24.936  1.00  50.88      7
ATOM  13745  CA   ASP G 605     78.691  82.466  25.120  1.00  51.18      6
ATOM  13746  CB   ASP G 605     77.968  82.432  23.775  1.00208.87      6
ATOM  13747  CG   ASP G 605     76.464  82.440  23.930  1.00208.87      6
ATOM  13748  OD1  ASP G 605     75.879  81.355  24.142  1.00208.87      8
ATOM  13749  OD2  ASP G 605     75.864  83.534  23.855  1.00208.87      8
ATOM  13750  C    ASP G 605     78.295  81.268  25.976  1.00  49.56      6
ATOM  13751  O    ASP G 605     77.341  81.324  26.742  1.00  49.51      8
ATOM  13752  N    ILE G 606     79.026  80.173  25.851  1.00  41.61      7
ATOM  13753  CA   ILE G 606     78.713  79.016  26.670  1.00  41.65      6
ATOM  13754  CB   ILE G 606     79.506  77.753  26.245  1.00  44.09      6
ATOM  13755  CG2  ILE G 606     79.121  76.572  27.120  1.00  42.98      6
ATOM  13756  CG1  ILE G 606     79.228  77.416  24.783  1.00  43.64      6
ATOM  13757  CD1  ILE G 606     80.000  78.255  23.791  1.00  43.28      6
ATOM  13758  C    ILE G 606     79.189  79.409  28.050  1.00  42.41      6
ATOM  13759  O    ILE G 606     78.831  78.796  29.041  1.00  43.00      8
ATOM  13760  N    LEU G 607     79.995  80.458  28.104  1.00  91.80      7
ATOM  13761  CA   LEU G 607     80.565  80.904  29.359  1.00  93.30      6
ATOM  13762  CB   LEU G 607     82.072  80.668  29.315  1.00  64.66      6
ATOM  13763  CG   LEU G 607     82.801  80.121  30.528  1.00  65.41      6
ATOM  13764  CD1  LEU G 607     82.646  78.606  30.580  1.00  65.76      6
ATOM  13765  CD2  LEU G 607     84.261  80.495  30.417  1.00  64.60      6
ATOM  13766  C    LEU G 607     80.312  82.382  29.619  1.00  94.48      6
ATOM  13767  O    LEU G 607     81.271  83.128  29.801  1.00  96.06      8
```

246

```
ATOM  13768  N   SER G 608    79.055  82.822  29.633  1.00  44.59    7
ATOM  13769  CA  SER G 608    78.794  84.239  29.884  1.00  45.43    6
ATOM  13770  CB  SER G 608    79.662  85.103  28.970  1.00  65.77    6
ATOM  13771  OG  SER G 608    79.407  86.480  29.208  1.00  67.77    8
ATOM  13772  C   SER G 608    77.367  84.772  29.793  1.00  45.67    6
ATOM  13773  O   SER G 608    76.537  84.283  29.030  1.00  45.55    8
ATOM  13774  N   GLY G 609    77.127  85.819  30.578  1.00  61.64    7
ATOM  13775  CA  GLY G 609    75.846  86.501  30.631  1.00  63.15    6
ATOM  13776  C   GLY G 609    74.603  85.718  30.285  1.00  64.26    6
ATOM  13777  O   GLY G 609    74.284  84.720  30.932  1.00  65.19    8
ATOM  13778  N   LYS G 610    73.897  86.206  29.267  1.00208.87    7
ATOM  13779  CA  LYS G 610    72.662  85.614  28.758  1.00208.87    6
ATOM  13780  CB  LYS G 610    72.487  86.017  27.290  1.00208.87    6
ATOM  13781  CG  LYS G 610    72.637  87.516  27.050  1.00208.87    6
ATOM  13782  CD  LYS G 610    72.744  87.847  25.569  1.00208.87    6
ATOM  13783  CE  LYS G 610    73.053  89.323  25.356  1.00208.87    6
ATOM  13784  NZ  LYS G 610    73.256  89.668  23.920  1.00208.87    7
ATOM  13785  C   LYS G 610    72.655  84.092  28.887  1.00208.87    6
ATOM  13786  O   LYS G 610    73.001  83.379  27.946  1.00208.87    8
ATOM  13787  N   GLN G 611    72.251  83.601  30.054  1.00  48.76    7
ATOM  13788  CA  GLN G 611    72.221  82.168  30.310  1.00  46.20    6
ATOM  13789  CB  GLN G 611    71.138  81.495  29.456  1.00184.13    6
ATOM  13790  CG  GLN G 611    69.726  81.960  29.775  1.00186.33    6
ATOM  13791  CD  GLN G 611    68.661  81.026  29.230  1.00187.53    6
ATOM  13792  OE1 GLN G 611    68.603  79.850  29.596  1.00188.49    8
ATOM  13793  NE2 GLN G 611    67.808  81.547  28.355  1.00187.68    7
ATOM  13794  C   GLN G 611    73.568  81.464  30.086  1.00  43.77    6
ATOM  13795  O   GLN G 611    73.749  80.758  29.097  1.00  43.16    8
ATOM  13796  N   GLY G 612    74.507  81.653  31.010  1.00  87.49    7
ATOM  13797  CA  GLY G 612    75.807  81.009  30.896  1.00  84.48    6
ATOM  13798  C   GLY G 612    76.013  80.040  32.046  1.00  82.41    6
ATOM  13799  O   GLY G 612    75.470  80.264  33.127  1.00  82.87    8
ATOM  13800  N   ARG G 613    76.792  78.978  31.828  1.00  92.68    7
ATOM  13801  CA  ARG G 613    77.053  77.968  32.860  1.00  90.80    6
ATOM  13802  CB  ARG G 613    78.222  77.059  32.470  1.00152.76    6
ATOM  13803  CG  ARG G 613    77.881  76.013  31.427  1.00156.97    6
ATOM  13804  CD  ARG G 613    76.751  75.093  31.874  1.00161.19    6
ATOM  13805  NE  ARG G 613    76.377  74.168  30.803  1.00165.23    7
ATOM  13806  CZ  ARG G 613    75.351  73.323  30.854  1.00166.73    6
ATOM  13807  NH1 ARG G 613    74.577  73.271  31.931  1.00166.77    7
ATOM  13808  NH2 ARG G 613    75.095  72.530  29.821  1.00167.54    7
ATOM  13809  C   ARG G 613    77.328  78.549  34.232  1.00  88.05    6
ATOM  13810  O   ARG G 613    77.528  77.803  35.186  1.00  88.02    8
ATOM  13811  N   PHE G 614    77.361  79.876  34.323  1.00  74.36    7
ATOM  13812  CA  PHE G 614    77.571  80.556  35.592  1.00  70.51    6
ATOM  13813  CB  PHE G 614    78.508  81.763  35.430  1.00  47.48    6
ATOM  13814  CG  PHE G 614    79.975  81.402  35.405  1.00  47.07    6
ATOM  13815  CD1 PHE G 614    80.766  81.712  34.303  1.00  46.72    6
ATOM  13816  CD2 PHE G 614    80.562  80.737  36.478  1.00  47.03    6
ATOM  13817  CE1 PHE G 614    82.110  81.366  34.267  1.00  47.18    6
ATOM  13818  CE2 PHE G 614    81.909  80.385  36.451  1.00  47.23    6
ATOM  13819  CZ  PHE G 614    82.680  80.699  35.346  1.00  47.41    6
ATOM  13820  C   PHE G 614    76.215  81.019  36.097  1.00  67.81    6
ATOM  13821  O   PHE G 614    75.697  80.505  37.084  1.00  68.35    8
ATOM  13822  N   ARG G 615    75.626  81.974  35.396  1.00  43.81    7
ATOM  13823  CA  ARG G 615    74.339  82.505  35.803  1.00  41.47    6
```

247

```
ATOM   13824  CB   ARG G 615    73.980  83.706  34.942  1.00 73.46      6
ATOM   13825  CG   ARG G 615    75.068  84.759  34.904  1.00 74.60      6
ATOM   13826  CD   ARG G 615    74.486  86.089  34.520  1.00 73.90      6
ATOM   13827  NE   ARG G 615    75.421  86.904  33.762  1.00 74.07      7
ATOM   13828  CZ   ARG G 615    75.088  88.058  33.193  1.00 74.42      6
ATOM   13829  NH1  ARG G 615    73.843  88.515  33.315  1.00 74.48      7
ATOM   13830  NH2  ARG G 615    75.983  88.746  32.486  1.00 75.26      7
ATOM   13831  C    ARG G 615    73.195  81.495  35.773  1.00 39.60      6
ATOM   13832  O    ARG G 615    72.223  81.632  36.517  1.00 39.50      8
ATOM   13833  N    GLN G 616    73.298  80.482  34.923  1.00 37.71      7
ATOM   13834  CA   GLN G 616    72.242  79.476  34.838  1.00 34.81      6
ATOM   13835  CB   GLN G 616    72.452  78.589  33.614  1.00 86.50      6
ATOM   13836  CG   GLN G 616    71.372  77.554  33.432  1.00 91.00      6
ATOM   13837  CD   GLN G 616    71.306  77.045  32.016  1.00 94.14      6
ATOM   13838  OE1  GLN G 616    71.019  77.801  31.082  1.00 95.38      8
ATOM   13839  NE2  GLN G 616    71.572  75.756  31.842  1.00 96.47      7
ATOM   13840  C    GLN G 616    72.271  78.636  36.096  1.00 30.75      6
ATOM   13841  O    GLN G 616    73.195  77.868  36.300  1.00 29.90      8
ATOM   13842  N    ASN G 617    71.248  78.790  36.922  1.00 16.17      7
ATOM   13843  CA   ASN G 617    71.115  78.101  38.200  1.00 13.87      6
ATOM   13844  CB   ASN G 617    72.425  77.467  38.696  1.00 18.24      6
ATOM   13845  CG   ASN G 617    72.580  76.019  38.283  1.00 16.86      6
ATOM   13846  OD1  ASN G 617    71.946  75.567  37.345  1.00 16.30      8
ATOM   13847  ND2  ASN G 617    73.448  75.291  38.973  1.00 17.10      7
ATOM   13848  C    ASN G 617    70.769  79.242  39.121  1.00 13.87      6
ATOM   13849  O    ASN G 617    69.851  79.149  39.922  1.00 13.87      8
ATOM   13850  N    LEU G 618    71.517  80.328  39.011  1.00 16.18      7
ATOM   13851  CA   LEU G 618    71.251  81.484  39.832  1.00 16.59      6
ATOM   13852  CB   LEU G 618    72.238  82.575  39.477  1.00 16.61      6
ATOM   13853  CG   LEU G 618    73.621  82.082  39.862  1.00 16.77      6
ATOM   13854  CD1  LEU G 618    74.719  82.906  39.228  1.00 14.48      6
ATOM   13855  CD2  LEU G 618    73.692  82.102  41.378  1.00 16.76      6
ATOM   13856  C    LEU G 618    69.832  81.867  39.455  1.00 17.94      6
ATOM   13857  O    LEU G 618    69.006  82.199  40.306  1.00 19.53      8
ATOM   13858  N    LEU G 619    69.554  81.779  38.161  1.00 25.37      7
ATOM   13859  CA   LEU G 619    68.243  82.075  37.611  1.00 25.49      6
ATOM   13860  CB   LEU G 619    68.377  82.407  36.131  1.00 16.11      6
ATOM   13861  CG   LEU G 619    68.183  83.825  35.641  1.00 13.87      6
ATOM   13862  CD1  LEU G 619    68.838  84.788  36.569  1.00 13.87      6
ATOM   13863  CD2  LEU G 619    68.759  83.921  34.251  1.00 13.87      6
ATOM   13864  C    LEU G 619    67.362  80.832  37.773  1.00 28.24      6
ATOM   13865  O    LEU G 619    67.528  80.055  38.712  1.00 28.33      8
ATOM   13866  N    GLY G 620    66.442  80.637  36.835  1.00107.94      7
ATOM   13867  CA   GLY G 620    65.539  79.505  36.914  1.00112.04      6
ATOM   13868  C    GLY G 620    66.060  78.147  36.482  1.00113.20      6
ATOM   13869  O    GLY G 620    67.268  77.925  36.364  1.00113.21      8
ATOM   13870  N    LYS G 621    65.109  77.241  36.261  1.00 78.17      7
ATOM   13871  CA   LYS G 621    65.364  75.871  35.830  1.00 77.93      6
ATOM   13872  CB   LYS G 621    66.348  75.179  36.783  1.00 46.54      6
ATOM   13873  CG   LYS G 621    67.751  75.050  36.216  1.00 46.21      6
ATOM   13874  CD   LYS G 621    68.566  73.982  36.926  1.00 45.82      6
ATOM   13875  CE   LYS G 621    69.924  73.822  36.264  1.00 44.86      6
ATOM   13876  NZ   LYS G 621    70.758  72.809  36.949  1.00 41.06      7
ATOM   13877  C    LYS G 621    64.052  75.082  35.791  1.00 78.01      6
ATOM   13878  O    LYS G 621    63.314  75.074  36.771  1.00 80.07      8
ATOM   13879  N    ARG G 622    63.768  74.432  34.660  1.00 26.65      7
```

248

```
ATOM   13880  CA   ARG G 622      62.557  73.627  34.492  1.00 25.79       6
ATOM   13881  CB   ARG G 622      62.384  73.248  33.027  1.00 60.74       6
ATOM   13882  CG   ARG G 622      61.900  74.378  32.171  1.00 61.77       6
ATOM   13883  CD   ARG G 622      60.395  74.504  32.266  1.00 63.51       6
ATOM   13884  NE   ARG G 622      59.940  75.826  31.840  1.00 65.64       7
ATOM   13885  CZ   ARG G 622      58.665  76.213  31.786  1.00 66.18       6
ATOM   13886  NH1  ARG G 622      57.684  75.381  32.122  1.00 64.18       7
ATOM   13887  NH2  ARG G 622      58.373  77.456  31.426  1.00 67.73       7
ATOM   13888  C    ARG G 622      62.524  72.351  35.348  1.00 25.89       6
ATOM   13889  O    ARG G 622      62.917  71.275  34.903  1.00 26.61       8
ATOM   13890  N    VAL G 623      62.044  72.478  36.581  1.00 20.79       7
ATOM   13891  CA   VAL G 623      61.940  71.349  37.495  1.00 21.50       6
ATOM   13892  CB   VAL G 623      61.307  71.780  38.828  1.00 94.77       6
ATOM   13893  CG1  VAL G 623      61.294  70.611  39.802  1.00 96.54       6
ATOM   13894  CG2  VAL G 623      62.084  72.948  39.407  1.00 95.05       6
ATOM   13895  C    VAL G 623      61.096  70.232  36.871  1.00 21.04       6
ATOM   13896  O    VAL G 623      60.007  70.471  36.341  1.00 19.07       8
ATOM   13897  N    ASP G 624      61.610  69.010  36.979  1.00 45.47       7
ATOM   13898  CA   ASP G 624      60.997  67.819  36.406  1.00 45.30       6
ATOM   13899  CB   ASP G 624      62.107  66.839  36.010  1.00 59.99       6
ATOM   13900  CG   ASP G 624      61.654  65.816  34.988  1.00 59.38       6
ATOM   13901  OD1  ASP G 624      60.913  66.199  34.060  1.00 58.91       8
ATOM   13902  OD2  ASP G 624      62.055  64.636  35.101  1.00 59.47       8
ATOM   13903  C    ASP G 624      59.988  67.094  37.275  1.00 45.22       6
ATOM   13904  O    ASP G 624      59.806  65.895  37.118  1.00 46.96       8
ATOM   13905  N    TYR G 625      59.323  67.794  38.186  1.00 49.99       7
ATOM   13906  CA   TYR G 625      58.331  67.120  39.027  1.00 49.16       6
ATOM   13907  CB   TYR G 625      59.020  66.346  40.148  1.00 33.14       6
ATOM   13908  CG   TYR G 625      59.310  64.887  39.856  1.00 29.99       6
ATOM   13909  CD1  TYR G 625      60.620  64.449  39.681  1.00 29.37       6
ATOM   13910  CE1  TYR G 625      60.912  63.115  39.507  1.00 27.99       6
ATOM   13911  CD2  TYR G 625      58.288  63.935  39.841  1.00 27.42       6
ATOM   13912  CE2  TYR G 625      58.573  62.593  39.674  1.00 26.81       6
ATOM   13913  CZ   TYR G 625      59.895  62.193  39.510  1.00 27.31       6
ATOM   13914  OH   TYR G 625      60.233  60.872  39.368  1.00 28.32       8
ATOM   13915  C    TYR G 625      57.261  68.009  39.658  1.00 49.98       6
ATOM   13916  O    TYR G 625      56.832  67.743  40.787  1.00 49.63       8
ATOM   13917  N    SER G 626      56.808  69.040  38.948  1.00 52.41       7
ATOM   13918  CA   SER G 626      55.807  69.920  39.529  1.00 52.33       6
ATOM   13919  CB   SER G 626      56.484  71.106  40.215  1.00124.14       6
ATOM   13920  OG   SER G 626      55.540  71.873  40.944  1.00125.46       8
ATOM   13921  C    SER G 626      54.775  70.444  38.563  1.00 51.15       6
ATOM   13922  O    SER G 626      54.878  70.244  37.359  1.00 51.25       8
ATOM   13923  N    GLY G 627      53.783  71.134  39.121  1.00 58.09       7
ATOM   13924  CA   GLY G 627      52.710  71.707  38.331  1.00 56.01       6
ATOM   13925  C    GLY G 627      52.141  72.981  38.927  1.00 53.66       6
ATOM   13926  O    GLY G 627      52.675  73.541  39.878  1.00 53.41       8
ATOM   13927  N    ARG G 628      51.037  73.437  38.357  1.00 28.82       7
ATOM   13928  CA   ARG G 628      50.394  74.659  38.801  1.00 27.47       6
ATOM   13929  CB   ARG G 628      50.950  75.862  38.032  1.00 53.79       6
ATOM   13930  CG   ARG G 628      52.416  75.756  37.635  1.00 57.63       6
ATOM   13931  CD   ARG G 628      52.876  76.935  36.772  1.00 59.23       6
ATOM   13932  NE   ARG G 628      51.971  77.215  35.659  1.00 61.60       7
ATOM   13933  CZ   ARG G 628      50.918  78.028  35.735  1.00 64.00       6
ATOM   13934  NH1  ARG G 628      50.635  78.645  36.878  1.00 64.19       7
ATOM   13935  NH2  ARG G 628      50.146  78.234  34.668  1.00 63.58       7
```

```
ATOM  13936  C    ARG G 628     48.898  74.557  38.531  1.00  26.02      6
ATOM  13937  O    ARG G 628     48.424  73.582  37.954  1.00  25.58      8
ATOM  13938  N    SER G 629     48.163  75.579  38.950  1.00  30.56      7
ATOM  13939  CA   SER G 629     46.726  75.633  38.755  1.00  28.99      6
ATOM  13940  CB   SER G 629     46.059  74.344  39.213  1.00  43.18      6
ATOM  13941  OG   SER G 629     44.649  74.481  39.162  1.00  45.83      8
ATOM  13942  C    SER G 629     46.162  76.764  39.565  1.00  26.79      6
ATOM  13943  O    SER G 629     46.817  77.269  40.470  1.00  27.02      8
ATOM  13944  N    VAL G 630     44.942  77.162  39.239  1.00  14.17      7
ATOM  13945  CA   VAL G 630     44.283  78.218  39.977  1.00  14.24      6
ATOM  13946  CB   VAL G 630     42.881  78.447  39.396  1.00  13.87      6
ATOM  13947  CG1  VAL G 630     41.960  79.043  40.417  1.00  13.87      6
ATOM  13948  CG2  VAL G 630     42.987  79.365  38.203  1.00  13.87      6
ATOM  13949  C    VAL G 630     44.227  77.752  41.435  1.00  15.94      6
ATOM  13950  O    VAL G 630     44.435  76.582  41.714  1.00  16.30      8
ATOM  13951  N    ILE G 631     43.999  78.646  42.380  1.00  35.03      7
ATOM  13952  CA   ILE G 631     43.931  78.198  43.760  1.00  37.30      6
ATOM  13953  CB   ILE G 631     45.077  78.747  44.620  1.00  51.58      6
ATOM  13954  CG2  ILE G 631     46.310  77.898  44.424  1.00  52.75      6
ATOM  13955  CG1  ILE G 631     45.300  80.226  44.302  1.00  53.75      6
ATOM  13956  CD1  ILE G 631     46.234  80.919  45.255  1.00  54.63      6
ATOM  13957  C    ILE G 631     42.640  78.653  44.374  1.00  35.86      6
ATOM  13958  O    ILE G 631     42.140  79.732  44.036  1.00  37.41      8
ATOM  13959  N    VAL G 632     42.104  77.813  45.263  1.00  35.48      7
ATOM  13960  CA   VAL G 632     40.862  78.088  45.969  1.00  33.73      6
ATOM  13961  CB   VAL G 632     39.722  77.190  45.505  1.00  13.87      6
ATOM  13962  CG1  VAL G 632     38.556  77.398  46.410  1.00  13.87      6
ATOM  13963  CG2  VAL G 632     39.321  77.518  44.083  1.00  13.87      6
ATOM  13964  C    VAL G 632     41.019  77.870  47.464  1.00  34.15      6
ATOM  13965  O    VAL G 632     41.772  76.997  47.901  1.00  34.87      8
ATOM  13966  N    VAL G 633     40.305  78.672  48.250  1.00  15.13      7
ATOM  13967  CA   VAL G 633     40.366  78.548  49.696  1.00  14.56      6
ATOM  13968  CB   VAL G 633     39.321  79.416  50.374  1.00  17.98      6
ATOM  13969  CG1  VAL G 633     37.940  79.010  49.921  1.00  17.51      6
ATOM  13970  CG2  VAL G 633     39.435  79.267  51.866  1.00  18.40      6
ATOM  13971  C    VAL G 633     40.072  77.103  50.026  1.00  15.01      6
ATOM  13972  O    VAL G 633     39.540  76.383  49.199  1.00  14.73      8
ATOM  13973  N    GLY G 634     40.410  76.672  51.226  1.00  24.13      7
ATOM  13974  CA   GLY G 634     40.144  75.296  51.569  1.00  26.32      6
ATOM  13975  C    GLY G 634     40.249  74.959  53.037  1.00  27.61      6
ATOM  13976  O    GLY G 634     41.319  74.568  53.506  1.00  27.49      8
ATOM  13977  N    PRO G 635     39.155  75.118  53.798  1.00  34.42      7
ATOM  13978  CD   PRO G 635     37.874  75.757  53.444  1.00  14.50      6
ATOM  13979  CA   PRO G 635     39.215  74.789  55.225  1.00  35.61      6
ATOM  13980  CB   PRO G 635     37.843  75.213  55.733  1.00  16.25      6
ATOM  13981  CG   PRO G 635     37.421  76.294  54.753  1.00  15.80      6
ATOM  13982  C    PRO G 635     39.464  73.274  55.362  1.00  39.07      6
ATOM  13983  O    PRO G 635     38.534  72.488  55.602  1.00  38.33      8
ATOM  13984  N    GLN G 636     40.727  72.883  55.169  1.00  59.89      7
ATOM  13985  CA   GLN G 636     41.177  71.489  55.246  1.00  60.82      6
ATOM  13986  CB   GLN G 636     42.413  71.277  54.381  1.00  49.54      6
ATOM  13987  CG   GLN G 636     42.223  71.510  52.915  1.00  51.17      6
ATOM  13988  CD   GLN G 636     43.479  72.062  52.285  1.00  52.97      6
ATOM  13989  OE1  GLN G 636     43.709  73.264  52.309  1.00  53.14      8
ATOM  13990  NE2  GLN G 636     44.314  71.186  51.741  1.00  54.60      7
ATOM  13991  C    GLN G 636     41.559  71.168  56.676  1.00  61.13      6
```

250

```
ATOM  13992  O    GLN G 636      40.742  71.279  57.584  1.00  61.46       8
ATOM  13993  N    ALA G 637      42.811  70.761  56.869  1.00  53.10       7
ATOM  13994  CA   ALA G 637      43.302  70.440  58.203  1.00  54.21       6
ATOM  13995  CB   ALA G 637      44.026  69.113  58.213  1.00  71.85       6
ATOM  13996  C    ALA G 637      44.240  71.539  58.624  1.00  53.34       6
ATOM  13997  O    ALA G 637      45.093  71.333  59.483  1.00  52.33       8
ATOM  13998  N    ALA G 638      44.054  72.702  58.000  1.00  49.90       7
ATOM  13999  CA   ALA G 638      44.839  73.899  58.266  1.00  48.08       6
ATOM  14000  CB   ALA G 638      44.380  74.565  59.527  1.00  33.63       6
ATOM  14001  C    ALA G 638      46.306  73.608  58.367  1.00  47.42       6
ATOM  14002  O    ALA G 638      46.733  72.732  59.113  1.00  46.58       8
ATOM  14003  N    LEU G 639      47.092  74.368  57.620  1.00  56.66       7
ATOM  14004  CA   LEU G 639      48.519  74.155  57.615  1.00  54.41       6
ATOM  14005  CB   LEU G 639      49.089  74.390  59.011  1.00  13.87       6
ATOM  14006  CG   LEU G 639      48.386  75.393  59.912  1.00  13.87       6
ATOM  14007  CD1  LEU G 639      49.148  75.508  61.198  1.00  13.87       6
ATOM  14008  CD2  LEU G 639      48.315  76.723  59.235  1.00  13.87       6
ATOM  14009  C    LEU G 639      48.540  72.674  57.314  1.00  55.55       6
ATOM  14010  O    LEU G 639      47.502  72.089  56.986  1.00  55.99       8
ATOM  14011  N    HIS G 640      49.706  72.060  57.393  1.00  47.02       7
ATOM  14012  CA   HIS G 640      49.743  70.634  57.198  1.00  47.70       6
ATOM  14013  CB   HIS G 640      48.840  70.027  58.257  1.00  53.49       6
ATOM  14014  CG   HIS G 640      49.482  68.950  59.045  1.00  57.32       6
ATOM  14015  CD2  HIS G 640      48.960  67.866  59.659  1.00  58.54       6
ATOM  14016  ND1  HIS G 640      50.829  68.946  59.325  1.00  60.71       7
ATOM  14017  CE1  HIS G 640      51.111  67.902  60.081  1.00  62.34       6
ATOM  14018  NE2  HIS G 640      49.993  67.231  60.300  1.00  61.91       7
ATOM  14019  C    HIS G 640      49.311  70.108  55.828  1.00  47.48       6
ATOM  14020  O    HIS G 640      50.120  69.599  55.058  1.00  47.90       8
ATOM  14021  N    GLN G 641      48.023  70.244  55.535  1.00  31.89       7
ATOM  14022  CA   GLN G 641      47.448  69.696  54.324  1.00  30.23       6
ATOM  14023  CB   GLN G 641      46.045  69.189  54.637  1.00  28.09       6
ATOM  14024  CG   GLN G 641      46.019  68.435  55.958  1.00  26.62       6
ATOM  14025  CD   GLN G 641      45.055  67.280  55.975  1.00  25.29       6
ATOM  14026  OE1  GLN G 641      43.835  67.465  55.888  1.00  23.03       8
ATOM  14027  NE2  GLN G 641      45.599  66.066  56.087  1.00  24.47       7
ATOM  14028  C    GLN G 641      47.429  70.535  53.078  1.00  30.20       6
ATOM  14029  O    GLN G 641      47.674  71.738  53.113  1.00  30.30       8
ATOM  14030  N    CYS G 642      47.105  69.869  51.972  1.00  59.16       7
ATOM  14031  CA   CYS G 642      47.092  70.486  50.658  1.00  59.05       6
ATOM  14032  CB   CYS G 642      48.428  70.189  49.991  1.00  39.80       6
ATOM  14033  SG   CYS G 642      48.944  71.434  48.854  1.00  42.08      16
ATOM  14034  C    CYS G 642      45.960  69.971  49.770  1.00  58.19       6
ATOM  14035  O    CYS G 642      45.579  68.802  49.855  1.00  59.53       8
ATOM  14036  N    GLY G 643      45.433  70.847  48.917  1.00  30.01       7
ATOM  14037  CA   GLY G 643      44.366  70.460  48.005  1.00  27.94       6
ATOM  14038  C    GLY G 643      44.874  69.424  47.023  1.00  27.01       6
ATOM  14039  O    GLY G 643      44.934  68.245  47.357  1.00  28.10       8
ATOM  14040  N    LEU G 644      45.235  69.847  45.815  1.00  36.37       7
ATOM  14041  CA   LEU G 644      45.778  68.933  44.802  1.00  36.23       6
ATOM  14042  CB   LEU G 644      46.899  68.069  45.398  1.00  16.15       6
ATOM  14043  CG   LEU G 644      48.324  68.376  44.937  1.00  13.87       6
ATOM  14044  CD1  LEU G 644      49.308  67.599  45.794  1.00  13.87       6
ATOM  14045  CD2  LEU G 644      48.482  68.043  43.460  1.00  13.87       6
ATOM  14046  C    LEU G 644      44.791  68.005  44.114  1.00  37.17       6
ATOM  14047  O    LEU G 644      44.489  66.922  44.619  1.00  38.29       8
```

251

```
ATOM   14048  N   PRO G 645      44.302  68.403  42.930  1.00 27.77      7
ATOM   14049  CD  PRO G 645      44.726  69.591  42.172  1.00 22.15      6
ATOM   14050  CA  PRO G 645      43.345  67.599  42.161  1.00 27.56      6
ATOM   14051  CB  PRO G 645      43.260  68.345  40.834  1.00 22.30      6
ATOM   14052  CG  PRO G 645      43.615  69.759  41.198  1.00 22.67      6
ATOM   14053  C   PRO G 645      43.941  66.218  41.980  1.00 28.10      6
ATOM   14054  O   PRO G 645      44.967  66.093  41.333  1.00 28.41      8
ATOM   14055  N   LYS G 646      43.329  65.178  42.533  1.00 30.15      7
ATOM   14056  CA  LYS G 646      43.910  63.842  42.383  1.00 30.47      6
ATOM   14057  CB  LYS G 646      42.888  62.755  42.741  1.00 24.99      6
ATOM   14058  CG  LYS G 646      41.577  62.860  42.009  1.00 23.28      6
ATOM   14059  CD  LYS G 646      40.559  61.945  42.637  1.00 23.51      6
ATOM   14060  CE  LYS G 646      39.182  62.205  42.066  1.00 24.35      6
ATOM   14061  NZ  LYS G 646      38.152  61.480  42.848  1.00 26.45      7
ATOM   14062  C   LYS G 646      44.448  63.624  40.973  1.00 31.88      6
ATOM   14063  O   LYS G 646      45.506  63.021  40.792  1.00 32.03      8
ATOM   14064  N   ARG G 647      43.739  64.145  39.976  1.00 25.35      7
ATOM   14065  CA  ARG G 647      44.180  63.983  38.597  1.00 26.83      6
ATOM   14066  CB  ARG G 647      43.302  64.797  37.648  1.00127.24      6
ATOM   14067  CG  ARG G 647      43.458  64.345  36.210  1.00133.86      6
ATOM   14068  CD  ARG G 647      43.269  62.826  36.126  1.00139.18      6
ATOM   14069  NE  ARG G 647      43.940  62.228  34.975  1.00144.06      7
ATOM   14070  CZ  ARG G 647      44.091  60.918  34.801  1.00145.06      6
ATOM   14071  NH1 ARG G 647      43.615  60.068  35.704  1.00144.69      7
ATOM   14072  NH2 ARG G 647      44.722  60.456  33.729  1.00145.29      7
ATOM   14073  C   ARG G 647      45.640  64.388  38.438  1.00 25.31      6
ATOM   14074  O   ARG G 647      46.417  63.690  37.793  1.00 25.84      8
ATOM   14075  N   MET G 648      46.010  65.512  39.037  1.00 19.05      7
ATOM   14076  CA  MET G 648      47.380  65.981  38.978  1.00 18.02      6
ATOM   14077  CB  MET G 648      47.435  67.497  39.054  1.00 32.50      6
ATOM   14078  CG  MET G 648      47.380  68.028  40.455  1.00 34.91      6
ATOM   14079  SD  MET G 648      47.480  69.798  40.456  1.00 36.66     16
ATOM   14080  CE  MET G 648      49.209  70.022  40.793  1.00 37.49      6
ATOM   14081  C   MET G 648      48.217  65.396  40.120  1.00 17.12      6
ATOM   14082  O   MET G 648      49.436  65.534  40.139  1.00 15.88      8
ATOM   14083  N   ALA G 649      47.581  64.761  41.093  1.00 34.65      7
ATOM   14084  CA  ALA G 649      48.363  64.183  42.173  1.00 35.55      6
ATOM   14085  CB  ALA G 649      47.471  63.766  43.335  1.00 20.55      6
ATOM   14086  C   ALA G 649      48.974  62.974  41.520  1.00 36.05      6
ATOM   14087  O   ALA G 649      50.156  62.685  41.696  1.00 36.72      8
ATOM   14088  N   LEU G 650      48.145  62.297  40.729  1.00 43.51      7
ATOM   14089  CA  LEU G 650      48.526  61.079  40.013  1.00 44.21      6
ATOM   14090  CB  LEU G 650      47.339  60.567  39.185  1.00 54.68      6
ATOM   14091  CG  LEU G 650      47.436  59.214  38.477  1.00 54.88      6
ATOM   14092  CD1 LEU G 650      46.947  58.101  39.388  1.00 55.39      6
ATOM   14093  CD2 LEU G 650      46.585  59.268  37.228  1.00 55.01      6
ATOM   14094  C   LEU G 650      49.715  61.331  39.096  1.00 44.70      6
ATOM   14095  O   LEU G 650      50.597  60.482  38.948  1.00 44.72      8
ATOM   14096  N   GLU G 651      49.728  62.500  38.470  1.00 46.93      7
ATOM   14097  CA  GLU G 651      50.819  62.826  37.584  1.00 46.42      6
ATOM   14098  CB  GLU G 651      50.515  64.085  36.792  1.00 60.92      6
ATOM   14099  CG  GLU G 651      50.570  63.858  35.301  1.00 65.33      6
ATOM   14100  CD  GLU G 651      51.733  62.972  34.901  1.00 67.82      6
ATOM   14101  OE1 GLU G 651      52.850  63.195  35.415  1.00 70.14      8
ATOM   14102  OE2 GLU G 651      51.534  62.060  34.069  1.00 67.84      8
ATOM   14103  C   GLU G 651      52.053  63.039  38.426  1.00 45.52      6
```

252

```
ATOM  14104   O    GLU G 651      52.995   62.259   38.366   1.00 45.96      8
ATOM  14105   N    LEU G 652      52.026   64.091   39.233   1.00 36.11      7
ATOM  14106   CA   LEU G 652      53.147   64.423   40.102   1.00 34.41      6
ATOM  14107   CB   LEU G 652      52.710   65.446   41.168   1.00 21.60      6
ATOM  14108   CG   LEU G 652      52.664   66.925   40.773   1.00 21.36      6
ATOM  14109   CD1  LEU G 652      54.037   67.366   40.270   1.00 19.67      6
ATOM  14110   CD2  LEU G 652      51.638   67.132   39.688   1.00 22.23      6
ATOM  14111   C    LEU G 652      53.806   63.234   40.795   1.00 33.17      6
ATOM  14112   O    LEU G 652      54.954   63.332   41.219   1.00 32.50      8
ATOM  14113   N    PHE G 653      53.098   62.114   40.905   1.00 68.11      7
ATOM  14114   CA   PHE G 653      53.654   60.952   41.598   1.00 68.09      6
ATOM  14115   CB   PHE G 653      52.853   60.704   42.897   1.00 15.11      6
ATOM  14116   CG   PHE G 653      53.155   61.683   44.012   1.00 13.87      6
ATOM  14117   CD1  PHE G 653      53.081   63.056   43.805   1.00 13.87      6
ATOM  14118   CD2  PHE G 653      53.494   61.226   45.274   1.00 13.87      6
ATOM  14119   CE1  PHE G 653      53.339   63.950   44.833   1.00 13.87      6
ATOM  14120   CE2  PHE G 653      53.750   62.117   46.304   1.00 13.87      6
ATOM  14121   CZ   PHE G 653      53.670   63.481   46.079   1.00 13.87      6
ATOM  14122   C    PHE G 653      53.758   59.630   40.811   1.00 69.20      6
ATOM  14123   O    PHE G 653      54.442   58.705   41.263   1.00 72.31      8
ATOM  14124   N    LYS G 654      53.117   59.547   39.641   1.00 18.77      7
ATOM  14125   CA   LYS G 654      53.106   58.308   38.851   1.00 15.87      6
ATOM  14126   CB   LYS G 654      53.074   58.574   37.345   1.00 23.37      6
ATOM  14127   CG   LYS G 654      52.859   57.283   36.557   1.00 22.14      6
ATOM  14128   CD   LYS G 654      52.856   57.484   35.048   1.00 19.84      6
ATOM  14129   CE   LYS G 654      51.618   58.224   34.565   1.00 18.72      6
ATOM  14130   NZ   LYS G 654      51.687   58.463   33.091   1.00 19.10      7
ATOM  14131   C    LYS G 654      54.221   57.335   39.142   1.00 14.73      6
ATOM  14132   O    LYS G 654      53.960   56.254   39.650   1.00 13.87      8
ATOM  14133   N    PRO G 655      55.480   57.694   38.822   1.00 13.87      7
ATOM  14134   CD   PRO G 655      56.032   58.955   38.299   1.00 22.00      6
ATOM  14135   CA   PRO G 655      56.565   56.751   39.101   1.00 14.48      6
ATOM  14136   CB   PRO G 655      57.804   57.640   39.090   1.00 21.20      6
ATOM  14137   CG   PRO G 655      57.481   58.577   38.005   1.00 20.69      6
ATOM  14138   C    PRO G 655      56.326   56.094   40.440   1.00 15.35      6
ATOM  14139   O    PRO G 655      56.027   54.911   40.497   1.00 14.19      8
ATOM  14140   N    PHE G 656      56.415   56.879   41.511   1.00 21.23      7
ATOM  14141   CA   PHE G 656      56.203   56.351   42.851   1.00 24.52      6
ATOM  14142   CB   PHE G 656      55.937   57.466   43.853   1.00 56.36      6
ATOM  14143   CG   PHE G 656      57.114   58.341   44.084   1.00 57.81      6
ATOM  14144   CD1  PHE G 656      57.429   59.341   43.179   1.00 58.17      6
ATOM  14145   CD2  PHE G 656      57.948   58.127   45.172   1.00 57.86      6
ATOM  14146   CE1  PHE G 656      58.558   60.118   43.352   1.00 58.92      6
ATOM  14147   CE2  PHE G 656      59.079   58.899   45.356   1.00 59.09      6
ATOM  14148   CZ   PHE G 656      59.389   59.899   44.441   1.00 59.84      6
ATOM  14149   C    PHE G 656      55.035   55.410   42.822   1.00 25.71      6
ATOM  14150   O    PHE G 656      55.071   54.385   43.494   1.00 25.94      8
ATOM  14151   N    LEU G 657      54.002   55.757   42.054   1.00 55.43      7
ATOM  14152   CA   LEU G 657      52.847   54.883   41.934   1.00 57.39      6
ATOM  14153   CB   LEU G 657      51.721   55.534   41.131   1.00 35.88      6
ATOM  14154   CG   LEU G 657      50.487   54.626   41.028   1.00 34.82      6
ATOM  14155   CD1  LEU G 657      49.888   54.480   42.397   1.00 33.46      6
ATOM  14156   CD2  LEU G 657      49.460   55.183   40.053   1.00 34.01      6
ATOM  14157   C    LEU G 657      53.354   53.634   41.217   1.00 59.67      6
ATOM  14158   O    LEU G 657      53.951   52.782   41.860   1.00 60.86      8
ATOM  14159   N    LEU G 658      53.150   53.530   39.901   1.00 45.66      7
```

253

```
ATOM    14160  CA  LEU G 658      53.607  52.360  39.138  1.00 47.25       6
ATOM    14161  CB  LEU G 658      54.691  52.748  38.139  1.00 42.38       6
ATOM    14162  CG  LEU G 658      54.531  54.006  37.307  1.00 40.85       6
ATOM    14163  CD1 LEU G 658      55.761  54.173  36.405  1.00 40.90       6
ATOM    14164  CD2 LEU G 658      53.245  53.911  36.507  1.00 39.81       6
ATOM    14165  C   LEU G 658      54.191  51.290  40.061  1.00 49.47       6
ATOM    14166  O   LEU G 658      53.493  50.363  40.462  1.00 48.46       8
ATOM    14167  N   LYS G 659      55.475  51.445  40.396  1.00 33.92       7
ATOM    14168  CA  LYS G 659      56.189  50.524  41.266  1.00 37.81       6
ATOM    14169  CB  LYS G 659      57.411  51.218  41.867  1.00112.52       6
ATOM    14170  CG  LYS G 659      58.279  50.319  42.729  1.00117.06       6
ATOM    14171  CD  LYS G 659      57.654  50.076  44.093  1.00120.47       6
ATOM    14172  CE  LYS G 659      58.485  49.122  44.934  1.00122.21       6
ATOM    14173  NZ  LYS G 659      57.930  48.986  46.311  1.00123.50       7
ATOM    14174  C   LYS G 659      55.259  50.032  42.369  1.00 39.05       6
ATOM    14175  O   LYS G 659      55.185  48.829  42.647  1.00 39.17       8
ATOM    14176  N   LYS G 660      54.553  50.964  43.002  1.00 78.10       7
ATOM    14177  CA  LYS G 660      53.610  50.619  44.056  1.00 81.03       6
ATOM    14178  CB  LYS G 660      52.731  51.817  44.409  1.00102.85       6
ATOM    14179  CG  LYS G 660      51.944  51.644  45.693  1.00104.43       6
ATOM    14180  CD  LYS G 660      52.879  51.492  46.885  1.00105.45       6
ATOM    14181  CE  LYS G 660      52.095  51.359  48.175  1.00106.90       6
ATOM    14182  NZ  LYS G 660      52.962  51.015  49.332  1.00108.02       7
ATOM    14183  C   LYS G 660      52.750  49.508  43.496  1.00 82.46       6
ATOM    14184  O   LYS G 660      52.751  48.398  44.018  1.00 83.58       8
ATOM    14185  N   MET G 661      52.034  49.815  42.418  1.00 73.78       7
ATOM    14186  CA  MET G 661      51.177  48.844  41.744  1.00 74.70       6
ATOM    14187  CB  MET G 661      50.676  49.408  40.422  1.00 47.67       6
ATOM    14188  CG  MET G 661      49.745  50.573  40.583  1.00 43.82       6
ATOM    14189  SD  MET G 661      49.083  51.056  39.019  1.00 37.36      16
ATOM    14190  CE  MET G 661      50.450  51.991  38.440  1.00 37.75       6
ATOM    14191  C   MET G 661      51.903  47.535  41.474  1.00 77.32       6
ATOM    14192  O   MET G 661      51.379  46.462  41.767  1.00 77.89       8
ATOM    14193  N   GLU G 662      53.098  47.626  40.895  1.00 41.30       7
ATOM    14194  CA  GLU G 662      53.889  46.437  40.615  1.00 43.36       6
ATOM    14195  CB  GLU G 662      55.353  46.787  40.326  1.00 97.38       6
ATOM    14196  CG  GLU G 662      56.286  45.571  40.448  1.00100.79       6
ATOM    14197  CD  GLU G 662      57.748  45.930  40.708  1.00102.66       6
ATOM    14198  OE1 GLU G 662      58.013  46.844  41.524  1.00104.78       8
ATOM    14199  OE2 GLU G 662      58.637  45.278  40.111  1.00102.38       8
ATOM    14200  C   GLU G 662      53.848  45.561  41.850  1.00 44.11       6
ATOM    14201  O   GLU G 662      53.162  44.541  41.883  1.00 44.20       8
ATOM    14202  N   GLU G 663      54.575  45.981  42.876  1.00 79.97       7
ATOM    14203  CA  GLU G 663      54.643  45.219  44.110  1.00 82.77       6
ATOM    14204  CB  GLU G 663      55.610  45.896  45.082  1.00185.83       6
ATOM    14205  CG  GLU G 663      56.181  44.959  46.130  1.00188.96       6
ATOM    14206  CD  GLU G 663      57.317  45.585  46.905  1.00190.76       6
ATOM    14207  OE1 GLU G 663      57.071  46.569  47.634  1.00192.26       8
ATOM    14208  OE2 GLU G 663      58.459  45.096  46.779  1.00191.84       8
ATOM    14209  C   GLU G 663      53.267  45.063  44.747  1.00 83.00       6
ATOM    14210  O   GLU G 663      52.996  44.079  45.445  1.00 82.12       8
ATOM    14211  N   LYS G 664      52.391  46.027  44.491  1.00 72.63       7
ATOM    14212  CA  LYS G 664      51.050  45.986  45.051  1.00 73.05       6
ATOM    14213  CB  LYS G 664      50.298  47.278  44.742  1.00 76.35       6
ATOM    14214  CG  LYS G 664      49.153  47.550  45.692  1.00 77.34       6
ATOM    14215  CD  LYS G 664      49.665  47.664  47.107  1.00 78.12       6
```

254

```
ATOM    14216  CE   LYS G 664      48.552  47.948  48.079  1.00  79.63      6
ATOM    14217  NZ   LYS G 664      49.094  47.991  49.459  1.00  80.80      7
ATOM    14218  C    LYS G 664      50.303  44.810  44.454  1.00  73.20      6
ATOM    14219  O    LYS G 664      49.115  44.624  44.708  1.00  73.35      8
ATOM    14220  N    ALA G 665      51.019  44.020  43.660  1.00121.02      7
ATOM    14221  CA   ALA G 665      50.463  42.848  42.996  1.00121.79      6
ATOM    14222  CB   ALA G 665      49.677  41.990  43.996  1.00143.90      6
ATOM    14223  C    ALA G 665      49.573  43.250  41.820  1.00121.53      6
ATOM    14224  O    ALA G 665      49.737  42.733  40.711  1.00121.51      8
ATOM    14225  N    PHE G 666      48.643  44.177  42.057  1.00  37.57      7
ATOM    14226  CA   PHE G 666      47.746  44.619  41.000  1.00  37.28      6
ATOM    14227  CB   PHE G 666      46.869  45.780  41.434  1.00123.03      6
ATOM    14228  CG   PHE G 666      46.038  46.307  40.321  1.00125.47      6
ATOM    14229  CD1  PHE G 666      45.194  45.450  39.619  1.00126.92      6
ATOM    14230  CD2  PHE G 666      46.150  47.623  39.910  1.00126.53      6
ATOM    14231  CE1  PHE G 666      44.476  45.893  38.518  1.00127.79      6
ATOM    14232  CE2  PHE G 666      45.435  48.079  38.806  1.00127.42      6
ATOM    14233  CZ   PHE G 666      44.595  47.209  38.108  1.00127.68      6
ATOM    14234  C    PHE G 666      48.520  45.049  39.780  1.00  36.21      6
ATOM    14235  O    PHE G 666      49.528  45.743  39.894  1.00  35.65      8
ATOM    14236  N    ALA G 667      48.024  44.652  38.615  1.00  71.70      7
ATOM    14237  CA   ALA G 667      48.677  44.951  37.350  1.00  72.52      6
ATOM    14238  CB   ALA G 667      49.100  46.416  37.295  1.00  56.64      6
ATOM    14239  C    ALA G 667      49.896  44.031  37.227  1.00  72.96      6
ATOM    14240  O    ALA G 667      50.666  43.858  38.179  1.00  73.12      8
ATOM    14241  N    PRO G 668      50.076  43.419  36.049  1.00  53.70      7
ATOM    14242  CD   PRO G 668      49.233  43.557  34.851  1.00164.07      6
ATOM    14243  CA   PRO G 668      51.196  42.509  35.795  1.00  53.37      6
ATOM    14244  CB   PRO G 668      50.948  42.051  34.356  1.00164.48      6
ATOM    14245  CG   PRO G 668      50.189  43.186  33.756  1.00164.69      6
ATOM    14246  C    PRO G 668      52.599  43.067  36.002  1.00  52.84      6
ATOM    14247  O    PRO G 668      53.227  42.800  37.028  1.00  52.68      8
ATOM    14248  N    ASN G 669      53.089  43.829  35.026  1.00128.24      7
ATOM    14249  CA   ASN G 669      54.431  44.407  35.096  1.00128.44      6
ATOM    14250  CB   ASN G 669      55.278  43.910  33.916  1.00145.71      6
ATOM    14251  CG   ASN G 669      56.743  44.310  34.029  1.00146.68      6
ATOM    14252  OD1  ASN G 669      57.072  45.493  34.119  1.00147.81      8
ATOM    14253  ND2  ASN G 669      57.631  43.319  34.016  1.00146.26      7
ATOM    14254  C    ASN G 669      54.382  45.930  35.084  1.00127.00      6
ATOM    14255  O    ASN G 669      53.428  46.522  34.583  1.00126.52      8
ATOM    14256  N    VAL G 670      55.415  46.557  35.642  1.00  63.00      7
ATOM    14257  CA   VAL G 670      55.484  48.011  35.693  1.00  61.29      6
ATOM    14258  CB   VAL G 670      56.821  48.503  36.288  1.00  53.47      6
ATOM    14259  CG1  VAL G 670      56.793  50.022  36.432  1.00  52.98      6
ATOM    14260  CG2  VAL G 670      57.064  47.849  37.634  1.00  51.91      6
ATOM    14261  C    VAL G 670      55.341  48.549  34.281  1.00  60.90      6
ATOM    14262  O    VAL G 670      54.912  49.682  34.071  1.00  60.85      8
ATOM    14263  N    LYS G 671      55.706  47.724  33.311  1.00  49.22      7
ATOM    14264  CA   LYS G 671      55.591  48.119  31.919  1.00  50.52      6
ATOM    14265  CB   LYS G 671      56.176  47.041  31.008  1.00104.96      6
ATOM    14266  CG   LYS G 671      57.603  46.625  31.344  1.00105.63      6
ATOM    14267  CD   LYS G 671      58.609  47.718  31.037  1.00105.64      6
ATOM    14268  CE   LYS G 671      60.023  47.235  31.308  1.00105.25      6
ATOM    14269  NZ   LYS G 671      61.030  48.239  30.876  1.00106.21      7
ATOM    14270  C    LYS G 671      54.096  48.216  31.690  1.00  50.79      6
ATOM    14271  O    LYS G 671      53.591  49.156  31.080  1.00  50.20      8
```

```
ATOM   14272  N   ALA G 672      53.397  47.212  32.198  1.00 91.90      7
ATOM   14273  CA  ALA G 672      51.957  47.149  32.079  1.00 92.72      6
ATOM   14274  CB  ALA G 672      51.462  45.838  32.651  1.00 54.28      6
ATOM   14275  C   ALA G 672      51.387  48.315  32.862  1.00 92.79      6
ATOM   14276  O   ALA G 672      50.385  48.920  32.479  1.00 93.15      8
ATOM   14277  N   ALA G 673      52.055  48.629  33.963  1.00 68.21      7
ATOM   14278  CA  ALA G 673      51.635  49.709  34.837  1.00 68.34      6
ATOM   14279  CB  ALA G 673      52.749  50.031  35.827  1.00 89.90      6
ATOM   14280  C   ALA G 673      51.216  50.975  34.096  1.00 67.95      6
ATOM   14281  O   ALA G 673      50.031  51.302  34.032  1.00 67.40      8
ATOM   14282  N   ARG G 674      52.190  51.681  33.535  1.00 65.41      7
ATOM   14283  CA  ARG G 674      51.908  52.922  32.835  1.00 67.03      6
ATOM   14284  CB  ARG G 674      53.205  53.506  32.273  1.00103.04      6
ATOM   14285  CG  ARG G 674      53.078  54.949  31.835  1.00104.24      6
ATOM   14286  CD  ARG G 674      52.793  55.058  30.353  1.00104.40      6
ATOM   14287  NE  ARG G 674      52.388  56.408  29.968  1.00105.20      7
ATOM   14288  CZ  ARG G 674      51.145  56.866  30.060  1.00105.41      6
ATOM   14289  NH1 ARG G 674      50.181  56.082  30.523  1.00104.98      7
ATOM   14290  NH2 ARG G 674      50.863  58.106  29.684  1.00106.31      7
ATOM   14291  C   ARG G 674      50.872  52.750  31.728  1.00 67.67      6
ATOM   14292  O   ARG G 674      50.029  53.625  31.509  1.00 67.06      8
ATOM   14293  N   ARG G 675      50.916  51.615  31.040  1.00108.48      7
ATOM   14294  CA  ARG G 675      49.966  51.376  29.965  1.00108.75      6
ATOM   14295  CB  ARG G 675      50.427  50.205  29.086  1.00127.82      6
ATOM   14296  CG  ARG G 675      49.981  50.321  27.623  1.00128.88      6
ATOM   14297  CD  ARG G 675      50.760  49.391  26.692  1.00129.54      6
ATOM   14298  NE  ARG G 675      52.204  49.594  26.792  1.00130.47      7
ATOM   14299  CZ  ARG G 675      53.016  48.857  27.546  1.00130.84      6
ATOM   14300  NH1 ARG G 675      52.527  47.855  28.266  1.00130.82      7
ATOM   14301  NH2 ARG G 675      54.315  49.131  27.589  1.00130.16      7
ATOM   14302  C   ARG G 675      48.582  51.109  30.546  1.00107.51      6
ATOM   14303  O   ARG G 675      47.585  51.116  29.832  1.00107.12      8
ATOM   14304  N   MET G 676      48.521  50.880  31.851  1.00 60.35      7
ATOM   14305  CA  MET G 676      47.239  50.639  32.495  1.00 60.57      6
ATOM   14306  CB  MET G 676      47.383  49.711  33.695  1.00 72.73      6
ATOM   14307  CG  MET G 676      46.073  49.476  34.430  1.00 72.58      6
ATOM   14308  SD  MET G 676      46.295  48.294  35.745  1.00 72.42     16
ATOM   14309  CE  MET G 676      46.929  46.852  34.793  1.00 72.53      6
ATOM   14310  C   MET G 676      46.659  51.958  32.963  1.00 60.63      6
ATOM   14311  O   MET G 676      45.488  52.031  33.336  1.00 60.07      8
ATOM   14312  N   LEU G 677      47.501  52.987  32.981  1.00 65.74      7
ATOM   14313  CA  LEU G 677      47.066  54.321  33.362  1.00 66.76      6
ATOM   14314  CB  LEU G 677      48.085  55.023  34.274  1.00 25.52      6
ATOM   14315  CG  LEU G 677      48.594  54.395  35.584  1.00 24.47      6
ATOM   14316  CD1 LEU G 677      49.595  55.345  36.213  1.00 23.03      6
ATOM   14317  CD2 LEU G 677      47.466  54.112  36.561  1.00 24.12      6
ATOM   14318  C   LEU G 677      47.027  55.013  32.014  1.00 68.67      6
ATOM   14319  O   LEU G 677      46.622  56.164  31.893  1.00 68.96      8
ATOM   14320  N   GLU G 678      47.453  54.273  30.997  1.00168.88      7
ATOM   14321  CA  GLU G 678      47.500  54.770  29.633  1.00171.52      6
ATOM   14322  CB  GLU G 678      48.436  53.893  28.805  1.00 87.26      6
ATOM   14323  CG  GLU G 678      48.953  54.529  27.538  1.00 86.39      6
ATOM   14324  CD  GLU G 678      50.389  54.947  27.677  1.00 85.88      6
ATOM   14325  OE1 GLU G 678      51.194  54.099  28.115  1.00 85.47      8
ATOM   14326  OE2 GLU G 678      50.716  56.109  27.348  1.00 85.93      8
ATOM   14327  C   GLU G 678      46.110  54.785  28.997  1.00173.21      6
```

256

```
ATOM  14328  O    GLU G 678      45.916  55.377  27.933  1.00173.73      8
ATOM  14329  N    ARG G 679      45.149  54.126  29.641  1.00 82.26      7
ATOM  14330  CA   ARG G 679      43.785  54.095  29.125  1.00 83.68      6
ATOM  14331  CB   ARG G 679      42.916  53.107  29.912  1.00128.49      6
ATOM  14332  CG   ARG G 679      43.183  51.636  29.611  1.00129.03      6
ATOM  14333  CD   ARG G 679      42.054  50.752  30.154  1.00129.61      6
ATOM  14334  NE   ARG G 679      42.181  49.354  29.737  1.00129.74      7
ATOM  14335  CZ   ARG G 679      41.224  48.436  29.871  1.00129.57      6
ATOM  14336  NH1  ARG G 679      40.055  48.760  30.411  1.00129.12      7
ATOM  14337  NH2  ARG G 679      41.435  47.191  29.462  1.00129.43      7
ATOM  14338  C    ARG G 679      43.180  55.492  29.216  1.00 84.53      6
ATOM  14339  O    ARG G 679      41.993  55.648  29.504  1.00 84.12      8
ATOM  14340  N    GLN G 680      44.025  56.491  28.970  1.00153.00      7
ATOM  14341  CA   GLN G 680      43.666  57.905  28.983  1.00154.45      6
ATOM  14342  CB   GLN G 680      43.039  58.291  27.634  1.00144.51      6
ATOM  14343  CG   GLN G 680      41.873  57.409  27.184  1.00146.04      6
ATOM  14344  CD   GLN G 680      41.491  57.618  25.724  1.00147.12      6
ATOM  14345  OE1  GLN G 680      40.546  57.003  25.225  1.00147.19      8
ATOM  14346  NE2  GLN G 680      42.227  58.483  25.032  1.00148.35      7
ATOM  14347  C    GLN G 680      42.777  58.375  30.132  1.00154.84      6
ATOM  14348  O    GLN G 680      43.148  59.289  30.871  1.00155.73      8
ATOM  14349  N    ARG G 681      41.609  57.761  30.284  1.00139.08      7
ATOM  14350  CA   ARG G 681      40.684  58.144  31.341  1.00138.36      6
ATOM  14351  CB   ARG G 681      39.772  59.263  30.832  1.00 91.06      6
ATOM  14352  CG   ARG G 681      40.552  60.517  30.464  1.00 91.28      6
ATOM  14353  CD   ARG G 681      39.747  61.508  29.641  1.00 92.01      6
ATOM  14354  NE   ARG G 681      40.460  62.777  29.495  1.00 92.46      7
ATOM  14355  CZ   ARG G 681      39.964  63.854  28.895  1.00 92.95      6
ATOM  14356  NH1  ARG G 681      38.745  63.828  28.371  1.00 93.70      7
ATOM  14357  NH2  ARG G 681      40.681  64.967  28.830  1.00 92.75      7
ATOM  14358  C    ARG G 681      39.859  56.956  31.827  1.00137.79      6
ATOM  14359  O    ARG G 681      39.253  56.244  31.026  1.00137.92      8
ATOM  14360  N    ASP G 682      39.867  56.766  33.148  1.00104.99      7
ATOM  14361  CA   ASP G 682      39.160  55.698  33.864  1.00103.46      6
ATOM  14362  CB   ASP G 682      38.302  54.839  32.928  1.00163.15      6
ATOM  14363  CG   ASP G 682      36.966  55.480  32.607  1.00165.34      6
ATOM  14364  OD1  ASP G 682      36.219  55.807  33.555  1.00165.78      8
ATOM  14365  OD2  ASP G 682      36.663  55.654  31.407  1.00166.58      8
ATOM  14366  C    ASP G 682      40.116  54.788  34.625  1.00101.32      6
ATOM  14367  O    ASP G 682      40.609  53.793  34.096  1.00101.09      8
ATOM  14368  N    ILE G 683      40.374  55.144  35.875  1.00 86.94      7
ATOM  14369  CA   ILE G 683      41.249  54.363  36.736  1.00 83.46      6
ATOM  14370  CB   ILE G 683      42.314  55.232  37.387  1.00 51.21      6
ATOM  14371  CG2  ILE G 683      43.171  54.373  38.304  1.00 50.34      6
ATOM  14372  CG1  ILE G 683      43.127  55.959  36.324  1.00 50.15      6
ATOM  14373  CD1  ILE G 683      44.025  57.015  36.916  1.00 50.36      6
ATOM  14374  C    ILE G 683      40.377  53.841  37.860  1.00 81.93      6
ATOM  14375  O    ILE G 683      39.948  54.615  38.712  1.00 81.42      8
ATOM  14376  N    LYS G 684      40.106  52.545  37.889  1.00 76.45      7
ATOM  14377  CA   LYS G 684      39.257  52.065  38.962  1.00 74.88      6
ATOM  14378  CB   LYS G 684      38.789  50.624  38.743  1.00122.35      6
ATOM  14379  CG   LYS G 684      37.513  50.306  39.537  1.00123.25      6
ATOM  14380  CD   LYS G 684      37.482  48.874  40.054  1.00124.08      6
ATOM  14381  CE   LYS G 684      36.303  48.657  40.998  1.00124.43      6
ATOM  14382  NZ   LYS G 684      36.359  47.338  41.692  1.00124.41      7
ATOM  14383  C    LYS G 684      39.992  52.160  40.279  1.00 72.87      6
```

```
ATOM   14384  O    LYS G 684        41.218  52.069  40.344  1.00 72.45       8
ATOM   14385  N    ASP G 685        39.204  52.350  41.324  1.00 46.96       7
ATOM   14386  CA   ASP G 685        39.688  52.480  42.685  1.00 44.48       6
ATOM   14387  CB   ASP G 685        38.530  52.193  43.654  1.00 38.62       6
ATOM   14388  CG   ASP G 685        37.279  51.678  42.946  1.00 36.98       6
ATOM   14389  OD1  ASP G 685        36.782  52.331  42.000  1.00 35.77       8
ATOM   14390  OD2  ASP G 685        36.790  50.613  43.354  1.00 37.11       8
ATOM   14391  C    ASP G 685        40.911  51.644  43.073  1.00 43.47       6
ATOM   14392  O    ASP G 685        41.707  52.070  43.902  1.00 42.39       8
ATOM   14393  N    GLU G 686        41.070  50.465  42.481  1.00 69.13       7
ATOM   14394  CA   GLU G 686        42.200  49.600  42.819  1.00 68.84       6
ATOM   14395  CB   GLU G 686        42.256  48.417  41.858  1.00127.87       6
ATOM   14396  CG   GLU G 686        40.977  47.618  41.806  1.00130.65       6
ATOM   14397  CD   GLU G 686        41.166  46.299  41.100  1.00132.99       6
ATOM   14398  OE1  GLU G 686        41.989  45.491  41.583  1.00135.19       8
ATOM   14399  OE2  GLU G 686        40.501  46.071  40.068  1.00132.61       8
ATOM   14400  C    GLU G 686        43.545  50.329  42.812  1.00 66.66       6
ATOM   14401  O    GLU G 686        44.486  49.929  43.505  1.00 66.14       8
ATOM   14402  N    VAL G 687        43.632  51.392  42.016  1.00 69.55       7
ATOM   14403  CA   VAL G 687        44.851  52.174  41.934  1.00 66.75       6
ATOM   14404  CB   VAL G 687        45.239  52.471  40.484  1.00 79.16       6
ATOM   14405  CG1  VAL G 687        46.303  53.553  40.435  1.00 78.97       6
ATOM   14406  CG2  VAL G 687        45.789  51.216  39.851  1.00 79.57       6
ATOM   14407  C    VAL G 687        44.718  53.472  42.707  1.00 64.40       6
ATOM   14408  O    VAL G 687        45.658  53.872  43.379  1.00 64.19       8
ATOM   14409  N    TRP G 688        43.572  54.144  42.624  1.00 34.82       7
ATOM   14410  CA   TRP G 688        43.430  55.369  43.400  1.00 32.17       6
ATOM   14411  CB   TRP G 688        41.989  55.844  43.443  1.00 42.38       6
ATOM   14412  CG   TRP G 688        41.674  56.816  42.383  1.00 40.93       6
ATOM   14413  CD2  TRP G 688        42.522  57.840  41.883  1.00 39.77       6
ATOM   14414  CE2  TRP G 688        41.824  58.495  40.852  1.00 39.82       6
ATOM   14415  CE3  TRP G 688        43.806  58.267  42.197  1.00 40.07       6
ATOM   14416  CD1  TRP G 688        40.526  56.892  41.667  1.00 41.78       6
ATOM   14417  NE1  TRP G 688        40.601  57.895  40.741  1.00 41.05       7
ATOM   14418  CZ2  TRP G 688        42.362  59.548  40.138  1.00 39.17       6
ATOM   14419  CZ3  TRP G 688        44.343  59.315  41.486  1.00 40.39       6
ATOM   14420  CH2  TRP G 688        43.622  59.943  40.466  1.00 40.16       6
ATOM   14421  C    TRP G 688        43.902  55.069  44.811  1.00 31.35       6
ATOM   14422  O    TRP G 688        44.760  55.767  45.347  1.00 31.58       8
ATOM   14423  N    ASP G 689        43.357  54.011  45.398  1.00 36.23       7
ATOM   14424  CA   ASP G 689        43.735  53.606  46.741  1.00 37.19       6
ATOM   14425  CB   ASP G 689        43.048  52.289  47.130  1.00 84.86       6
ATOM   14426  CG   ASP G 689        41.618  52.484  47.602  1.00 87.86       6
ATOM   14427  OD1  ASP G 689        41.361  53.479  48.317  1.00 89.18       8
ATOM   14428  OD2  ASP G 689        40.760  51.631  47.274  1.00 88.73       8
ATOM   14429  C    ASP G 689        45.248  53.429  46.863  1.00 36.89       6
ATOM   14430  O    ASP G 689        45.731  52.814  47.826  1.00 37.89       8
ATOM   14431  N    ALA G 690        45.997  53.957  45.896  1.00 36.69       7
ATOM   14432  CA   ALA G 690        47.452  53.859  45.925  1.00 35.82       6
ATOM   14433  CB   ALA G 690        47.981  53.525  44.549  1.00 88.29       6
ATOM   14434  C    ALA G 690        48.115  55.132  46.444  1.00 35.02       6
ATOM   14435  O    ALA G 690        48.864  55.093  47.419  1.00 33.34       8
ATOM   14436  N    LEU G 691        47.857  56.256  45.791  1.00 49.11       7
ATOM   14437  CA   LEU G 691        48.454  57.496  46.245  1.00 49.90       6
ATOM   14438  CB   LEU G 691        48.005  58.671  45.373  1.00 13.87       6
ATOM   14439  CG   LEU G 691        48.000  58.476  43.864  1.00 13.87       6
```

258

```
ATOM   14440  CD1 LEU G 691      46.955  57.450  43.541  1.00  13.87      6
ATOM   14441  CD2 LEU G 691      47.696  59.765  43.155  1.00  13.87      6
ATOM   14442  C   LEU G 691      47.959  57.681  47.679  1.00  52.48      6
ATOM   14443  O   LEU G 691      48.702  58.115  48.566  1.00  53.88      8
ATOM   14444  N   GLU G 692      46.695  57.335  47.908  1.00  97.21      7
ATOM   14445  CA  GLU G 692      46.127  57.458  49.241  1.00  98.91      6
ATOM   14446  CB  GLU G 692      44.691  56.904  49.282  1.00  73.29      6
ATOM   14447  CG  GLU G 692      43.657  57.771  48.529  1.00  74.54      6
ATOM   14448  CD  GLU G 692      42.246  57.166  48.487  1.00  74.13      6
ATOM   14449  OE1 GLU G 692      41.698  56.858  49.564  1.00  74.43      8
ATOM   14450  OE2 GLU G 692      41.678  57.009  47.381  1.00  73.17      8
ATOM   14451  C   GLU G 692      47.045  56.672  50.161  1.00  99.71      6
ATOM   14452  O   GLU G 692      46.965  56.794  51.383  1.00 101.25      8
ATOM   14453  N   GLU G 693      47.925  55.872  49.556  1.00  33.70      7
ATOM   14454  CA  GLU G 693      48.896  55.082  50.304  1.00  34.46      6
ATOM   14455  CB  GLU G 693      48.758  53.589  50.003  1.00  74.88      6
ATOM   14456  CG  GLU G 693      49.753  52.758  50.810  1.00  76.85      6
ATOM   14457  CD  GLU G 693      49.538  51.266  50.693  1.00  78.68      6
ATOM   14458  OE1 GLU G 693      48.424  50.798  51.016  1.00  80.74      8
ATOM   14459  OE2 GLU G 693      50.489  50.562  50.288  1.00  78.64      8
ATOM   14460  C   GLU G 693      50.340  55.516  50.035  1.00  34.30      6
ATOM   14461  O   GLU G 693      51.218  55.305  50.872  1.00  34.92      8
ATOM   14462  N   VAL G 694      50.592  56.111  48.869  1.00  62.59      7
ATOM   14463  CA  VAL G 694      51.937  56.599  48.520  1.00  61.55      6
ATOM   14464  CB  VAL G 694      52.059  56.888  47.012  1.00  42.74      6
ATOM   14465  CG1 VAL G 694      53.492  57.256  46.661  1.00  42.49      6
ATOM   14466  CG2 VAL G 694      51.591  55.692  46.227  1.00  43.31      6
ATOM   14467  C   VAL G 694      52.120  57.919  49.257  1.00  60.03      6
ATOM   14468  O   VAL G 694      52.919  58.033  50.190  1.00  58.95      8
ATOM   14469  N   ILE G 695      51.356  58.905  48.802  1.00  46.85      7
ATOM   14470  CA  ILE G 695      51.328  60.234  49.374  1.00  45.93      6
ATOM   14471  CB  ILE G 695      49.973  60.907  49.079  1.00  45.86      6
ATOM   14472  CG2 ILE G 695      49.745  62.097  50.004  1.00  45.84      6
ATOM   14473  CG1 ILE G 695      49.912  61.321  47.619  1.00  46.05      6
ATOM   14474  CD1 ILE G 695      48.638  62.051  47.274  1.00  46.62      6
ATOM   14475  C   ILE G 695      51.475  60.143  50.882  1.00  45.93      6
ATOM   14476  O   ILE G 695      51.982  61.060  51.530  1.00  46.59      8
ATOM   14477  N   HIS G 696      51.029  59.027  51.440  1.00  37.20      7
ATOM   14478  CA  HIS G 696      51.077  58.857  52.877  1.00  37.10      6
ATOM   14479  CB  HIS G 696      50.621  57.466  53.275  1.00  62.35      6
ATOM   14480  CG  HIS G 696      49.890  57.446  54.573  1.00  65.83      6
ATOM   14481  CD2 HIS G 696      50.312  57.169  55.827  1.00  67.81      6
ATOM   14482  ND1 HIS G 696      48.573  57.835  54.685  1.00  67.75      7
ATOM   14483  CE1 HIS G 696      48.214  57.798  55.955  1.00  68.94      6
ATOM   14484  NE2 HIS G 696      49.251  57.399  56.669  1.00  68.75      7
ATOM   14485  C   HIS G 696      52.432  59.126  53.486  1.00  34.92      6
ATOM   14486  O   HIS G 696      53.402  58.414  53.222  1.00  34.04      8
ATOM   14487  N   GLY G 697      52.479  60.166  54.313  1.00  61.97      7
ATOM   14488  CA  GLY G 697      53.711  60.540  54.976  1.00  60.50      6
ATOM   14489  C   GLY G 697      54.517  61.512  54.149  1.00  59.15      6
ATOM   14490  O   GLY G 697      55.432  62.161  54.644  1.00  59.68      8
ATOM   14491  N   LYS G 698      54.176  61.615  52.875  1.00  32.49      7
ATOM   14492  CA  LYS G 698      54.894  62.505  51.997  1.00  30.03      6
ATOM   14493  CB  LYS G 698      54.908  61.952  50.574  1.00  59.08      6
ATOM   14494  CG  LYS G 698      55.761  60.705  50.420  1.00  61.54      6
ATOM   14495  CD  LYS G 698      55.662  60.129  49.031  1.00  63.05      6
```

259

```
ATOM   14496  CE  LYS G 698      56.521  58.890  48.915  1.00 64.81      6
ATOM   14497  NZ  LYS G 698      56.228  58.133  47.662  1.00 66.75      7
ATOM   14498  C   LYS G 698      54.250  63.853  52.015  1.00 27.60      6
ATOM   14499  O   LYS G 698      53.036  63.973  52.102  1.00 27.52      8
ATOM   14500  N   VAL G 699      55.083  64.874  51.951  1.00 33.63      7
ATOM   14501  CA  VAL G 699      54.604  66.230  51.938  1.00 32.05      6
ATOM   14502  CB  VAL G 699      55.314  67.082  52.960  1.00 18.04      6
ATOM   14503  CG1 VAL G 699      55.126  66.500  54.326  1.00 18.53      6
ATOM   14504  CG2 VAL G 699      56.773  67.201  52.596  1.00 19.26      6
ATOM   14505  C   VAL G 699      54.944  66.769  50.576  1.00 30.37      6
ATOM   14506  O   VAL G 699      55.728  66.163  49.851  1.00 30.18      8
ATOM   14507  N   VAL G 700      54.362  67.910  50.237  1.00 47.17      7
ATOM   14508  CA  VAL G 700      54.596  68.544  48.952  1.00 44.94      6
ATOM   14509  CB  VAL G 700      53.392  68.344  48.028  1.00 13.87      6
ATOM   14510  CG1 VAL G 700      53.590  69.095  46.740  1.00 13.87      6
ATOM   14511  CG2 VAL G 700      53.226  66.882  47.730  1.00 13.87      6
ATOM   14512  C   VAL G 700      54.809  70.032  49.173  1.00 45.13      6
ATOM   14513  O   VAL G 700      54.151  70.623  50.025  1.00 46.25      8
ATOM   14514  N   LEU G 701      55.733  70.635  48.425  1.00 31.56      7
ATOM   14515  CA  LEU G 701      56.006  72.065  48.549  1.00 30.51      6
ATOM   14516  CB  LEU G 701      57.398  72.389  48.014  1.00 19.40      6
ATOM   14517  CG  LEU G 701      58.572  72.159  48.967  1.00 19.97      6
ATOM   14518  CD1 LEU G 701      58.323  70.961  49.838  1.00 21.06      6
ATOM   14519  CD2 LEU G 701      59.839  71.957  48.181  1.00 20.10      6
ATOM   14520  C   LEU G 701      54.968  72.828  47.758  1.00 31.25      6
ATOM   14521  O   LEU G 701      54.595  72.417  46.662  1.00 31.89      8
ATOM   14522  N   LEU G 702      54.484  73.928  48.318  1.00 13.87      7
ATOM   14523  CA  LEU G 702      53.486  74.743  47.625  1.00 13.87      6
ATOM   14524  CB  LEU G 702      52.242  74.881  48.513  1.00 13.87      6
ATOM   14525  CG  LEU G 702      50.864  74.734  47.879  1.00 13.87      6
ATOM   14526  CD1 LEU G 702      50.695  75.788  46.818  1.00 13.87      6
ATOM   14527  CD2 LEU G 702      50.730  73.382  47.268  1.00 13.87      6
ATOM   14528  C   LEU G 702      54.159  76.101  47.362  1.00 16.31      6
ATOM   14529  O   LEU G 702      54.962  76.538  48.171  1.00 15.48      8
ATOM   14530  N   ASN G 703      53.880  76.766  46.245  1.00 34.74      7
ATOM   14531  CA  ASN G 703      54.563  78.039  46.002  1.00 39.25      6
ATOM   14532  CB  ASN G 703      55.876  77.807  45.251  1.00 63.81      6
ATOM   14533  CG  ASN G 703      56.366  79.059  44.529  1.00 65.71      6
ATOM   14534  OD1 ASN G 703      56.243  80.170  45.044  1.00 69.41      8
ATOM   14535  ND2 ASN G 703      56.928  78.881  43.335  1.00 64.14      7
ATOM   14536  C   ASN G 703      53.803  79.120  45.275  1.00 40.59      6
ATOM   14537  O   ASN G 703      53.155  78.860  44.268  1.00 42.16      8
ATOM   14538  N   ARG G 704      53.940  80.345  45.771  1.00 50.15      7
ATOM   14539  CA  ARG G 704      53.276  81.509  45.195  1.00 51.77      6
ATOM   14540  CB  ARG G 704      52.660  82.354  46.305  1.00 71.61      6
ATOM   14541  CG  ARG G 704      52.414  83.815  45.942  1.00 72.56      6
ATOM   14542  CD  ARG G 704      51.095  84.021  45.251  1.00 71.72      6
ATOM   14543  NE  ARG G 704      50.763  85.437  45.220  1.00 71.33      7
ATOM   14544  CZ  ARG G 704      49.553  85.901  44.945  1.00 72.09      6
ATOM   14545  NH1 ARG G 704      48.577  85.053  44.679  1.00 73.18      7
ATOM   14546  NH2 ARG G 704      49.313  87.203  44.948  1.00 72.05      7
ATOM   14547  C   ARG G 704      54.199  82.390  44.361  1.00 52.25      6
ATOM   14548  O   ARG G 704      55.392  82.505  44.647  1.00 53.60      8
ATOM   14549  N   ALA G 705      53.597  83.032  43.359  1.00 59.29      7
ATOM   14550  CA  ALA G 705      54.249  83.922  42.399  1.00 58.39      6
ATOM   14551  CB  ALA G 705      53.238  84.941  41.897  1.00 32.08      6
```

260

```
ATOM   14552  C    ALA G 705      55.545  84.625  42.811  1.00 58.27      6
ATOM   14553  O    ALA G 705      56.603  83.996  42.855  1.00 60.43      8
ATOM   14554  N    PRO G 706      55.498  85.935  43.107  1.00 47.84      7
ATOM   14555  CD   PRO G 706      54.396  86.843  43.468  1.00 17.08      6
ATOM   14556  CA   PRO G 706      56.779  86.531  43.484  1.00 47.16      6
ATOM   14557  CB   PRO G 706      56.451  88.003  43.527  1.00 17.01      6
ATOM   14558  CG   PRO G 706      55.126  87.975  44.165  1.00 16.10      6
ATOM   14559  C    PRO G 706      57.174  86.004  44.846  1.00 47.25      6
ATOM   14560  O    PRO G 706      56.429  86.168  45.807  1.00 47.58      8
ATOM   14561  N    THR G 707      58.334  85.372  44.944  1.00 58.75      7
ATOM   14562  CA   THR G 707      58.743  84.833  46.228  1.00 57.99      6
ATOM   14563  CB   THR G 707      59.451  83.505  46.064  1.00 13.87      6
ATOM   14564  OG1  THR G 707      58.738  82.713  45.112  1.00 13.87      8
ATOM   14565  CG2  THR G 707      59.495  82.771  47.386  1.00 13.87      6
ATOM   14566  C    THR G 707      59.654  85.778  46.977  1.00 58.21      6
ATOM   14567  O    THR G 707      60.609  86.308  46.428  1.00 60.89      8
ATOM   14568  N    LEU G 708      59.342  85.980  48.244  1.00 30.92      7
ATOM   14569  CA   LEU G 708      60.101  86.854  49.113  1.00 30.27      6
ATOM   14570  CB   LEU G 708      59.351  88.162  49.245  1.00 50.27      6
ATOM   14571  CG   LEU G 708      58.937  88.593  47.835  1.00 52.01      6
ATOM   14572  CD1  LEU G 708      57.711  89.509  47.857  1.00 51.20      6
ATOM   14573  CD2  LEU G 708      60.148  89.245  47.172  1.00 52.56      6
ATOM   14574  C    LEU G 708      60.078  86.063  50.398  1.00 29.61      6
ATOM   14575  O    LEU G 708      59.076  85.442  50.704  1.00 31.01      8
ATOM   14576  N    HIS G 709      61.163  86.074  51.152  1.00 20.02      7
ATOM   14577  CA   HIS G 709      61.272  85.280  52.384  1.00 20.12      6
ATOM   14578  CB   HIS G 709      60.578  85.957  53.596  1.00 26.13      6
ATOM   14579  CG   HIS G 709      59.091  86.111  53.470  1.00 24.12      6
ATOM   14580  CD2  HIS G 709      58.075  85.401  54.012  1.00 23.49      6
ATOM   14581  ND1  HIS G 709      58.501  87.113  52.732  1.00 23.70      7
ATOM   14582  CE1  HIS G 709      57.188  87.011  52.822  1.00 22.98      6
ATOM   14583  NE2  HIS G 709      56.903  85.981  53.593  1.00 23.50      7
ATOM   14584  C    HIS G 709      60.826  83.804  52.274  1.00 20.07      6
ATOM   14585  O    HIS G 709      59.842  83.451  51.620  1.00 18.92      8
ATOM   14586  N    ARG G 710      61.605  82.943  52.919  1.00 30.46      7
ATOM   14587  CA   ARG G 710      61.350  81.509  52.947  1.00 29.87      6
ATOM   14588  CB   ARG G 710      61.948  80.899  54.232  1.00 35.37      6
ATOM   14589  CG   ARG G 710      61.425  81.525  55.516  1.00 36.40      6
ATOM   14590  CD   ARG G 710      61.844  80.760  56.744  1.00 36.25      6
ATOM   14591  NE   ARG G 710      63.271  80.851  56.985  1.00 38.39      7
ATOM   14592  CZ   ARG G 710      63.846  80.480  58.123  1.00 39.64      6
ATOM   14593  NH1  ARG G 710      63.105  79.993  59.111  1.00 38.83      7
ATOM   14594  NH2  ARG G 710      65.155  80.613  58.286  1.00 40.25      7
ATOM   14595  C    ARG G 710      59.869  81.174  52.882  1.00 29.14      6
ATOM   14596  O    ARG G 710      59.472  80.272  52.157  1.00 29.02      8
ATOM   14597  N    LEU G 711      59.058  81.904  53.647  1.00 43.22      7
ATOM   14598  CA   LEU G 711      57.625  81.655  53.691  1.00 43.96      6
ATOM   14599  CB   LEU G 711      56.963  82.450  54.829  1.00 16.37      6
ATOM   14600  CG   LEU G 711      57.333  82.109  56.279  1.00 14.11      6
ATOM   14601  CD1  LEU G 711      56.143  82.399  57.189  1.00 13.87      6
ATOM   14602  CD2  LEU G 711      57.724  80.654  56.402  1.00 13.87      6
ATOM   14603  C    LEU G 711      56.891  81.908  52.377  1.00 45.04      6
ATOM   14604  O    LEU G 711      55.711  82.243  52.366  1.00 44.80      8
ATOM   14605  N    GLY G 712      57.596  81.745  51.268  1.00 40.20      7
ATOM   14606  CA   GLY G 712      56.967  81.915  49.975  1.00 42.22      6
ATOM   14607  C    GLY G 712      56.672  80.521  49.457  1.00 42.67      6
```

261

```
ATOM   14608  O    GLY G 712      55.797  80.307  48.613  1.00  43.12      8
ATOM   14609  N    ILE G 713      57.421  79.559  49.982  1.00  50.14      7
ATOM   14610  CA   ILE G 713      57.247  78.175  49.600  1.00  50.51      6
ATOM   14611  CB   ILE G 713      58.585  77.466  49.474  1.00  52.75      6
ATOM   14612  CG2  ILE G 713      58.367  75.975  49.301  1.00  54.09      6
ATOM   14613  CG1  ILE G 713      59.340  78.033  48.273  1.00  54.70      6
ATOM   14614  CD1  ILE G 713      60.627  77.306  47.966  1.00  55.45      6
ATOM   14615  C    ILE G 713      56.367  77.416  50.584  1.00  49.30      6
ATOM   14616  O    ILE G 713      55.180  77.240  50.329  1.00  50.35      8
ATOM   14617  N    ALA G 714      56.923  76.969  51.707  1.00  30.45      7
ATOM   14618  CA   ALA G 714      56.121  76.216  52.685  1.00  27.60      6
ATOM   14619  CB   ALA G 714      54.934  77.079  53.186  1.00  31.44      6
ATOM   14620  C    ALA G 714      55.624  74.860  52.124  1.00  25.04      6
ATOM   14621  O    ALA G 714      54.949  74.776  51.094  1.00  23.08      8
ATOM   14622  N    ALA G 715      55.984  73.792  52.814  1.00  27.33      7
ATOM   14623  CA   ALA G 715      55.615  72.463  52.370  1.00  27.59      6
ATOM   14624  CB   ALA G 715      56.794  71.514  52.516  1.00132.96      6
ATOM   14625  C    ALA G 715      54.449  71.944  53.153  1.00  26.48      6
ATOM   14626  O    ALA G 715      54.288  72.269  54.326  1.00  26.56      8
ATOM   14627  N    PHE G 716      53.655  71.114  52.494  1.00  19.00      7
ATOM   14628  CA   PHE G 716      52.473  70.531  53.091  1.00  17.79      6
ATOM   14629  CB   PHE G 716      51.230  71.159  52.467  1.00  15.42      6
ATOM   14630  CG   PHE G 716      51.170  72.650  52.614  1.00  14.59      6
ATOM   14631  CD1  PHE G 716      51.584  73.482  51.583  1.00  14.85      6
ATOM   14632  CD2  PHE G 716      50.675  73.232  53.781  1.00  14.00      6
ATOM   14633  CE1  PHE G 716      51.500  74.876  51.716  1.00  14.43      6
ATOM   14634  CE2  PHE G 716      50.590  74.615  53.913  1.00  13.99      6
ATOM   14635  CZ   PHE G 716      51.001  75.435  52.884  1.00  13.99      6
ATOM   14636  C    PHE G 716      52.461  69.026  52.870  1.00  17.00      6
ATOM   14637  O    PHE G 716      53.463  68.462  52.463  1.00  16.45      8
ATOM   14638  N    GLN G 717      51.327  68.396  53.173  1.00  26.66      7
ATOM   14639  CA   GLN G 717      51.111  66.963  52.979  1.00  28.92      6
ATOM   14640  CB   GLN G 717      50.809  66.272  54.308  1.00  36.50      6
ATOM   14641  CG   GLN G 717      52.049  65.885  55.102  1.00  40.15      6
ATOM   14642  CD   GLN G 717      51.735  65.009  56.304  1.00  42.75      6
ATOM   14643  OE1  GLN G 717      50.871  64.136  56.237  1.00  45.51      8
ATOM   14644  NE2  GLN G 717      52.450  65.226  57.405  1.00  42.90      7
ATOM   14645  C    GLN G 717      49.890  66.920  52.063  1.00  28.79      6
ATOM   14646  O    GLN G 717      48.896  67.574  52.342  1.00  31.04      8
ATOM   14647  N    PRO G 718      49.938  66.156  50.960  1.00  16.35      7
ATOM   14648  CD   PRO G 718      50.992  65.310  50.391  1.00  32.39      6
ATOM   14649  CA   PRO G 718      48.765  66.148  50.089  1.00  15.09      6
ATOM   14650  CB   PRO G 718      49.202  65.287  48.909  1.00  30.27      6
ATOM   14651  CG   PRO G 718      50.668  65.394  48.920  1.00  31.37      6
ATOM   14652  C    PRO G 718      47.527  65.596  50.743  1.00  15.32      6
ATOM   14653  O    PRO G 718      47.593  64.892  51.760  1.00  15.79      8
ATOM   14654  N    VAL G 719      46.395  65.943  50.136  1.00  16.51      7
ATOM   14655  CA   VAL G 719      45.082  65.501  50.567  1.00  17.02      6
ATOM   14656  CB   VAL G 719      44.532  66.392  51.655  1.00  14.46      6
ATOM   14657  CG1  VAL G 719      43.148  65.949  52.007  1.00  14.39      6
ATOM   14658  CG2  VAL G 719      45.414  66.308  52.870  1.00  14.74      6
ATOM   14659  C    VAL G 719      44.172  65.567  49.351  1.00  17.89      6
ATOM   14660  O    VAL G 719      43.609  66.611  49.047  1.00  16.69      8
ATOM   14661  N    LEU G 720      44.049  64.433  48.663  1.00  20.33      7
ATOM   14662  CA   LEU G 720      43.241  64.305  47.460  1.00  21.11      6
ATOM   14663  CB   LEU G 720      43.025  62.829  47.126  1.00  14.64      6
```

262

```
ATOM   14664  CG   LEU G 720      44.124  62.364  46.165  1.00 13.87       6
ATOM   14665  CD1  LEU G 720      45.426  62.116  46.909  1.00 13.87       6
ATOM   14666  CD2  LEU G 720      43.669  61.121  45.462  1.00 14.34       6
ATOM   14667  C    LEU G 720      41.914  65.048  47.463  1.00 22.73       6
ATOM   14668  O    LEU G 720      41.010  64.773  48.258  1.00 21.44       8
ATOM   14669  N    VAL G 721      41.821  65.988  46.529  1.00 39.17       7
ATOM   14670  CA   VAL G 721      40.662  66.845  46.364  1.00 42.72       6
ATOM   14671  CB   VAL G 721      41.084  68.336  46.571  1.00 54.49       6
ATOM   14672  CG1  VAL G 721      39.872  69.250  46.548  1.00 55.85       6
ATOM   14673  CG2  VAL G 721      41.824  68.491  47.893  1.00 55.86       6
ATOM   14674  C    VAL G 721      40.043  66.657  44.971  1.00 44.38       6
ATOM   14675  O    VAL G 721      40.421  65.758  44.225  1.00 44.51       8
ATOM   14676  N    GLU G 722      39.101  67.527  44.628  1.00 58.78       7
ATOM   14677  CA   GLU G 722      38.424  67.463  43.353  1.00 59.57       6
ATOM   14678  CB   GLU G 722      37.169  68.324  43.393  1.00 85.56       6
ATOM   14679  CG   GLU G 722      35.947  67.470  43.233  1.00 89.94       6
ATOM   14680  CD   GLU G 722      36.237  66.029  43.613  1.00 92.32       6
ATOM   14681  OE1  GLU G 722      36.653  65.793  44.770  1.00 93.46       8
ATOM   14682  OE2  GLU G 722      36.066  65.141  42.750  1.00 93.50       8
ATOM   14683  C    GLU G 722      39.214  67.763  42.090  1.00 59.65       6
ATOM   14684  O    GLU G 722      40.318  67.241  41.902  1.00 61.04       8
ATOM   14685  N    GLY G 723      38.645  68.603  41.226  1.00 40.93       7
ATOM   14686  CA   GLY G 723      39.284  68.889  39.950  1.00 38.76       6
ATOM   14687  C    GLY G 723      39.825  70.263  39.617  1.00 37.33       6
ATOM   14688  O    GLY G 723      39.082  71.224  39.425  1.00 37.23       8
ATOM   14689  N    GLN G 724      41.141  70.325  39.476  1.00 29.06       7
ATOM   14690  CA   GLN G 724      41.822  71.559  39.176  1.00 26.74       6
ATOM   14691  CB   GLN G 724      41.145  72.288  38.022  1.00 40.38       6
ATOM   14692  CG   GLN G 724      41.719  71.923  36.651  1.00 42.31       6
ATOM   14693  CD   GLN G 724      41.394  70.507  36.235  1.00 42.14       6
ATOM   14694  OE1  GLN G 724      41.978  69.967  35.296  1.00 40.27       8
ATOM   14695  NE2  GLN G 724      40.443  69.903  36.925  1.00 43.33       7
ATOM   14696  C    GLN G 724      41.845  72.412  40.427  1.00 25.18       6
ATOM   14697  O    GLN G 724      41.233  72.061  41.436  1.00 25.52       8
ATOM   14698  N    SER G 725      42.563  73.526  40.356  1.00 19.49       7
ATOM   14699  CA   SER G 725      42.723  74.435  41.485  1.00 17.67       6
ATOM   14700  CB   SER G 725      41.448  75.274  41.705  1.00 13.87       6
ATOM   14701  OG   SER G 725      40.322  74.505  42.059  1.00 13.87       8
ATOM   14702  C    SER G 725      43.126  73.699  42.768  1.00 16.50       6
ATOM   14703  O    SER G 725      42.358  72.896  43.299  1.00 16.70       8
ATOM   14704  N    ILE G 726      44.345  73.952  43.246  1.00 20.69       7
ATOM   14705  CA   ILE G 726      44.817  73.305  44.465  1.00 19.81       6
ATOM   14706  CB   ILE G 726      46.353  73.548  44.721  1.00 14.20       6
ATOM   14707  CG2  ILE G 726      46.787  72.857  45.997  1.00 14.20       6
ATOM   14708  CG1  ILE G 726      47.218  72.976  43.589  1.00 14.72       6
ATOM   14709  CD1  ILE G 726      47.303  73.852  42.353  1.00 17.23       6
ATOM   14710  C    ILE G 726      44.013  73.960  45.571  1.00 18.92       6
ATOM   14711  O    ILE G 726      43.654  75.116  45.448  1.00 19.18       8
ATOM   14712  N    GLN G 727      43.706  73.220  46.629  1.00 13.87       7
ATOM   14713  CA   GLN G 727      42.950  73.767  47.749  1.00 14.48       6
ATOM   14714  CB   GLN G 727      41.992  72.722  48.305  1.00 24.01       6
ATOM   14715  CG   GLN G 727      40.716  72.603  47.528  1.00 23.54       6
ATOM   14716  CD   GLN G 727      39.644  71.914  48.326  1.00 25.34       6
ATOM   14717  OE1  GLN G 727      38.481  71.856  47.916  1.00 25.77       8
ATOM   14718  NE2  GLN G 727      40.024  71.385  49.484  1.00 24.98       7
ATOM   14719  C    GLN G 727      43.880  74.231  48.861  1.00 15.32       6
```

```
ATOM  14720  O    GLN G 727    44.431  73.397  49.595  1.00  15.78       8
ATOM  14721  N    LEU G 728    44.036  75.551  48.999  1.00  34.39       7
ATOM  14722  CA   LEU G 728    44.936  76.142  49.998  1.00  34.99       6
ATOM  14723  CB   LEU G 728    45.629  77.342  49.375  1.00  13.87       6
ATOM  14724  CG   LEU G 728    46.750  78.040  50.121  1.00  13.87       6
ATOM  14725  CD1  LEU G 728    48.094  77.459  49.744  1.00  13.87       6
ATOM  14726  CD2  LEU G 728    46.684  79.521  49.760  1.00  14.94       6
ATOM  14727  C    LEU G 728    44.221  76.547  51.289  1.00  36.53       6
ATOM  14728  O    LEU G 728    43.030  76.852  51.260  1.00  39.24       8
ATOM  14729  N    HIS G 729    44.958  76.569  52.406  1.00  28.88       7
ATOM  14730  CA   HIS G 729    44.410  76.873  53.753  1.00  28.66       6
ATOM  14731  CB   HIS G 729    45.146  76.010  54.768  1.00  28.50       6
ATOM  14732  CG   HIS G 729    44.943  76.434  56.180  1.00  27.76       6
ATOM  14733  CD2  HIS G 729    45.810  76.543  57.210  1.00  28.21       6
ATOM  14734  ND1  HIS G 729    43.711  76.769  56.683  1.00  29.65       7
ATOM  14735  CE1  HIS G 729    43.823  77.062  57.965  1.00  29.49       6
ATOM  14736  NE2  HIS G 729    45.088  76.929  58.310  1.00  27.87       7
ATOM  14737  C    HIS G 729    44.379  78.327  54.268  1.00  29.30       6
ATOM  14738  O    HIS G 729    45.418  78.897  54.595  1.00  30.59       8
ATOM  14739  N    PRO G 730    43.172  78.898  54.453  1.00  38.51       7
ATOM  14740  CD   PRO G 730    41.999  78.112  54.848  1.00  22.47       6
ATOM  14741  CA   PRO G 730    42.985  80.273  54.917  1.00  38.14       6
ATOM  14742  CB   PRO G 730    41.629  80.230  55.616  1.00  20.38       6
ATOM  14743  CG   PRO G 730    41.543  78.863  56.079  1.00  21.03       6
ATOM  14744  C    PRO G 730    44.062  80.919  55.768  1.00  38.03       6
ATOM  14745  O    PRO G 730    44.247  82.127  55.671  1.00  39.63       8
ATOM  14746  N    LEU G 731    44.775  80.165  56.596  1.00  15.71       7
ATOM  14747  CA   LEU G 731    45.818  80.814  57.392  1.00  14.59       6
ATOM  14748  CB   LEU G 731    46.174  80.013  58.649  1.00  17.32       6
ATOM  14749  CG   LEU G 731    45.183  80.029  59.815  1.00  17.32       6
ATOM  14750  CD1  LEU G 731    45.812  79.365  61.015  1.00  17.76       6
ATOM  14751  CD2  LEU G 731    44.812  81.449  60.158  1.00  17.32       6
ATOM  14752  C    LEU G 731    47.077  81.031  56.567  1.00  15.18       6
ATOM  14753  O    LEU G 731    47.641  82.129  56.521  1.00  15.61       8
ATOM  14754  N    VAL G 732    47.523  79.981  55.905  1.00  23.13       7
ATOM  14755  CA   VAL G 732    48.711  80.082  55.090  1.00  25.05       6
ATOM  14756  CB   VAL G 732    48.870  78.821  54.249  1.00  18.02       6
ATOM  14757  CG1  VAL G 732    49.744  79.112  53.040  1.00  19.24       6
ATOM  14758  CG2  VAL G 732    49.466  77.715  55.108  1.00  17.58       6
ATOM  14759  C    VAL G 732    48.684  81.317  54.187  1.00  26.23       6
ATOM  14760  O    VAL G 732    49.691  81.988  54.011  1.00  26.14       8
ATOM  14761  N    CYS G 733    47.528  81.629  53.631  1.00  29.02       7
ATOM  14762  CA   CYS G 733    47.435  82.778  52.755  1.00  30.73       6
ATOM  14763  CB   CYS G 733    46.038  83.382  52.829  1.00  33.46       6
ATOM  14764  SG   CYS G 733    44.897  82.520  51.784  1.00  39.09      16
ATOM  14765  C    CYS G 733    48.479  83.856  53.020  1.00  30.47       6
ATOM  14766  O    CYS G 733    49.531  83.876  52.383  1.00  32.24       8
ATOM  14767  N    GLU G 734    48.180  84.733  53.975  1.00  19.36       7
ATOM  14768  CA   GLU G 734    49.028  85.864  54.357  1.00  17.14       6
ATOM  14769  CB   GLU G 734    48.860  86.141  55.846  1.00  56.42       6
ATOM  14770  CG   GLU G 734    49.561  87.391  56.299  1.00  60.62       6
ATOM  14771  CD   GLU G 734    49.045  87.879  57.625  1.00  63.07       6
ATOM  14772  OE1  GLU G 734    47.849  88.241  57.691  1.00  62.92       8
ATOM  14773  OE2  GLU G 734    49.828  87.895  58.598  1.00  64.54       8
ATOM  14774  C    GLU G 734    50.499  85.746  54.023  1.00  14.32       6
ATOM  14775  O    GLU G 734    50.974  86.402  53.116  1.00  13.87       8
```

264

```
ATOM   14776  N    ALA G 735      51.218  84.918  54.766  1.00 19.50      7
ATOM   14777  CA   ALA G 735      52.630  84.731  54.524  1.00 18.84      6
ATOM   14778  CB   ALA G 735      53.089  83.451  55.136  1.00 52.86      6
ATOM   14779  C    ALA G 735      52.867  84.698  53.040  1.00 19.82      6
ATOM   14780  O    ALA G 735      53.674  85.471  52.544  1.00 21.91      8
ATOM   14781  N    PHE G 736      52.147  83.811  52.341  1.00 19.80      7
ATOM   14782  CA   PHE G 736      52.236  83.618  50.865  1.00 19.91      6
ATOM   14783  CB   PHE G 736      51.409  82.416  50.394  1.00 39.31      6
ATOM   14784  CG   PHE G 736      51.977  81.077  50.761  1.00 41.46      6
ATOM   14785  CD1  PHE G 736      52.558  80.850  52.013  1.00 43.08      6
ATOM   14786  CD2  PHE G 736      51.850  80.012  49.881  1.00 41.14      6
ATOM   14787  CE1  PHE G 736      52.998  79.575  52.384  1.00 43.64      6
ATOM   14788  CE2  PHE G 736      52.280  78.749  50.236  1.00 42.45      6
ATOM   14789  CZ   PHE G 736      52.856  78.527  51.494  1.00 42.53      6
ATOM   14790  C    PHE G 736      51.667  84.793  50.117  1.00 18.63      6
ATOM   14791  O    PHE G 736      52.102  85.119  49.028  1.00 18.17      8
ATOM   14792  N    ASN G 737      50.662  85.403  50.721  1.00 19.99      7
ATOM   14793  CA   ASN G 737      49.949  86.514  50.131  1.00 22.37      6
ATOM   14794  CB   ASN G 737      50.877  87.656  49.691  1.00 28.87      6
ATOM   14795  CG   ASN G 737      50.097  88.878  49.168  1.00 30.91      6
ATOM   14796  OD1  ASN G 737      49.308  88.769  48.218  1.00 31.45      8
ATOM   14797  ND2  ASN G 737      50.309  90.035  49.793  1.00 30.32      7
ATOM   14798  C    ASN G 737      49.277  85.924  48.920  1.00 22.93      6
ATOM   14799  O    ASN G 737      49.951  85.516  47.972  1.00 23.26      8
ATOM   14800  N    ALA G 738      47.949  85.881  48.946  1.00 41.86      7
ATOM   14801  CA   ALA G 738      47.236  85.321  47.826  1.00 42.97      6
ATOM   14802  CB   ALA G 738      47.570  83.841  47.724  1.00 39.26      6
ATOM   14803  C    ALA G 738      45.747  85.480  47.934  1.00 43.00      6
ATOM   14804  O    ALA G 738      45.103  84.559  48.379  1.00 44.08      8
ATOM   14805  N    ASP G 739      45.160  86.603  47.547  1.00 25.53      7
ATOM   14806  CA   ASP G 739      43.705  86.612  47.670  1.00 26.98      6
ATOM   14807  CB   ASP G 739      43.087  88.033  47.761  1.00 31.33      6
ATOM   14808  CG   ASP G 739      42.968  88.730  46.433  1.00 31.96      6
ATOM   14809  OD1  ASP G 739      43.985  89.271  45.959  1.00 34.21      8
ATOM   14810  OD2  ASP G 739      41.854  88.748  45.870  1.00 29.43      8
ATOM   14811  C    ASP G 739      43.133  85.797  46.517  1.00 27.24      6
ATOM   14812  O    ASP G 739      43.441  86.016  45.348  1.00 27.57      8
ATOM   14813  N    PHE G 740      42.326  84.813  46.876  1.00 27.06      7
ATOM   14814  CA   PHE G 740      41.742  83.926  45.906  1.00 26.36      6
ATOM   14815  CB   PHE G 740      40.870  82.885  46.610  1.00 15.95      6
ATOM   14816  CG   PHE G 740      41.599  82.076  47.651  1.00 13.87      6
ATOM   14817  CD1  PHE G 740      41.584  82.459  48.977  1.00 13.87      6
ATOM   14818  CD2  PHE G 740      42.279  80.927  47.306  1.00 13.87      6
ATOM   14819  CE1  PHE G 740      42.230  81.722  49.932  1.00 13.87      6
ATOM   14820  CE2  PHE G 740      42.924  80.193  48.259  1.00 13.87      6
ATOM   14821  CZ   PHE G 740      42.898  80.591  49.579  1.00 13.87      6
ATOM   14822  C    PHE G 740      40.919  84.624  44.848  1.00 27.47      6
ATOM   14823  O    PHE G 740      39.696  84.558  44.886  1.00 28.22      8
ATOM   14824  N    ASP G 741      41.567  85.289  43.900  1.00 13.87      7
ATOM   14825  CA   ASP G 741      40.804  85.938  42.848  1.00 13.87      6
ATOM   14826  CB   ASP G 741      40.612  87.429  43.122  1.00 59.38      6
ATOM   14827  CG   ASP G 741      41.897  88.196  43.102  1.00 63.10      6
ATOM   14828  OD1  ASP G 741      42.910  87.623  42.651  1.00 65.86      8
ATOM   14829  OD2  ASP G 741      41.883  89.375  43.530  1.00 64.67      8
ATOM   14830  C    ASP G 741      41.446  85.749  41.503  1.00 13.87      6
ATOM   14831  O    ASP G 741      41.435  86.647  40.665  1.00 13.87      8
```

265

```
ATOM   14832  N    GLY G 742      41.990  84.552  41.306  1.00  39.80      7
ATOM   14833  CA   GLY G 742      42.645  84.208  40.059  1.00  41.21      6
ATOM   14834  C    GLY G 742      44.089  83.790  40.265  1.00  41.72      6
ATOM   14835  O    GLY G 742      44.799  83.499  39.308  1.00  41.86      8
ATOM   14836  N    ASP G 743      44.527  83.748  41.516  1.00  23.67      7
ATOM   14837  CA   ASP G 743      45.902  83.382  41.804  1.00  23.48      6
ATOM   14838  CB   ASP G 743      46.229  83.625  43.276  1.00  42.73      6
ATOM   14839  CG   ASP G 743      46.325  85.094  43.613  1.00  44.71      6
ATOM   14840  OD1  ASP G 743      46.874  85.850  42.782  1.00  46.33      8
ATOM   14841  OD2  ASP G 743      45.876  85.487  44.713  1.00  44.74      8
ATOM   14842  C    ASP G 743      46.243  81.950  41.447  1.00  22.67      6
ATOM   14843  O    ASP G 743      45.377  81.102  41.346  1.00  22.59      8
ATOM   14844  N    GLN G 744      47.526  81.693  41.253  1.00  42.42      7
ATOM   14845  CA   GLN G 744      47.992  80.366  40.919  1.00  41.78      6
ATOM   14846  CB   GLN G 744      48.379  80.290  39.458  1.00  42.22      6
ATOM   14847  CG   GLN G 744      47.269  80.439  38.494  1.00  43.50      6
ATOM   14848  CD   GLN G 744      47.612  79.718  37.221  1.00  45.81      6
ATOM   14849  OE1  GLN G 744      47.743  78.498  37.217  1.00  45.52      8
ATOM   14850  NE2  GLN G 744      47.784  80.461  36.135  1.00  48.73      7
ATOM   14851  C    GLN G 744      49.221  80.048  41.746  1.00  40.15      6
ATOM   14852  O    GLN G 744      50.001  80.944  42.073  1.00  40.06      8
ATOM   14853  N    MET G 745      49.396  78.771  42.071  1.00  13.87      7
ATOM   14854  CA   MET G 745      50.539  78.343  42.844  1.00  13.87      6
ATOM   14855  CB   MET G 745      50.118  77.959  44.264  1.00  14.30      6
ATOM   14856  CG   MET G 745      50.036  79.178  45.179  1.00  14.30      6
ATOM   14857  SD   MET G 745      49.811  78.869  46.948  1.00  16.68     16
ATOM   14858  CE   MET G 745      47.967  79.149  47.112  1.00  14.30      6
ATOM   14859  C    MET G 745      51.164  77.182  42.134  1.00  13.87      6
ATOM   14860  O    MET G 745      50.503  76.535  41.336  1.00  13.87      8
ATOM   14861  N    ALA G 746      52.449  76.952  42.384  1.00  16.13      7
ATOM   14862  CA   ALA G 746      53.153  75.832  41.780  1.00  18.41      6
ATOM   14863  CB   ALA G 746      54.607  76.155  41.638  1.00  13.87      6
ATOM   14864  C    ALA G 746      52.948  74.658  42.739  1.00  19.55      6
ATOM   14865  O    ALA G 746      52.069  74.729  43.598  1.00  20.61      8
ATOM   14866  N    VAL G 747      53.725  73.583  42.633  1.00  30.45      7
ATOM   14867  CA   VAL G 747      53.484  72.472  43.551  1.00  30.58      6
ATOM   14868  CB   VAL G 747      52.094  71.826  43.235  1.00  23.22      6
ATOM   14869  CG1  VAL G 747      52.163  71.029  41.937  1.00  23.65      6
ATOM   14870  CG2  VAL G 747      51.630  70.976  44.392  1.00  23.96      6
ATOM   14871  C    VAL G 747      54.554  71.379  43.631  1.00  30.28      6
ATOM   14872  O    VAL G 747      54.245  70.243  43.948  1.00  32.28      8
ATOM   14873  N    HIS G 748      55.808  71.726  43.376  1.00  17.28      7
ATOM   14874  CA   HIS G 748      56.924  70.772  43.431  1.00  17.23      6
ATOM   14875  CB   HIS G 748      58.216  71.518  43.722  1.00  13.87      6
ATOM   14876  CG   HIS G 748      58.360  72.760  42.921  1.00  13.87      6
ATOM   14877  CD2  HIS G 748      58.186  74.059  43.256  1.00  13.87      6
ATOM   14878  ND1  HIS G 748      58.592  72.738  41.566  1.00  13.87      7
ATOM   14879  CE1  HIS G 748      58.550  73.972  41.097  1.00  13.87      6
ATOM   14880  NE2  HIS G 748      58.303  74.792  42.103  1.00  13.87      7
ATOM   14881  C    HIS G 748      56.798  69.643  44.439  1.00  18.83      6
ATOM   14882  O    HIS G 748      56.114  69.760  45.445  1.00  20.21      8
ATOM   14883  N    VAL G 749      57.499  68.552  44.170  1.00  25.03      7
ATOM   14884  CA   VAL G 749      57.486  67.395  45.047  1.00  26.18      6
ATOM   14885  CB   VAL G 749      56.884  66.176  44.325  1.00  39.04      6
ATOM   14886  CG1  VAL G 749      56.855  64.978  45.260  1.00  38.12      6
ATOM   14887  CG2  VAL G 749      55.507  66.501  43.809  1.00  40.76      6
```

```
ATOM   14888  C   VAL G 749      58.918  67.020  45.436  1.00  27.56      6
ATOM   14889  O   VAL G 749      59.729  66.755  44.553  1.00  28.62      8
ATOM   14890  N   PRO G 750      59.265  67.021  46.746  1.00  22.28      7
ATOM   14891  CD  PRO G 750      58.541  67.396  47.971  1.00  17.65      6
ATOM   14892  CA  PRO G 750      60.645  66.633  47.061  1.00  22.70      6
ATOM   14893  CB  PRO G 750      60.723  66.788  48.589  1.00  17.39      6
ATOM   14894  CG  PRO G 750      59.320  66.656  49.039  1.00  17.73      6
ATOM   14895  C   PRO G 750      60.784  65.193  46.566  1.00  23.59      6
ATOM   14896  O   PRO G 750      59.841  64.395  46.657  1.00  23.30      8
ATOM   14897  N   LEU G 751      61.952  64.866  46.032  1.00  58.94      7
ATOM   14898  CA  LEU G 751      62.143  63.557  45.439  1.00  60.91      6
ATOM   14899  CB  LEU G 751      62.309  63.747  43.935  1.00  52.80      6
ATOM   14900  CG  LEU G 751      62.109  62.554  43.016  1.00  55.13      6
ATOM   14901  CD1 LEU G 751      60.636  62.428  42.674  1.00  54.73      6
ATOM   14902  CD2 LEU G 751      62.934  62.751  41.760  1.00  54.76      6
ATOM   14903  C   LEU G 751      63.302  62.723  45.959  1.00  61.93      6
ATOM   14904  O   LEU G 751      63.539  61.626  45.458  1.00  63.68      8
ATOM   14905  N   SER G 752      64.025  63.218  46.957  1.00  43.89      7
ATOM   14906  CA  SER G 752      65.171  62.476  47.479  1.00  42.39      6
ATOM   14907  CB  SER G 752      66.460  63.167  47.028  1.00  31.08      6
ATOM   14908  OG  SER G 752      66.202  64.486  46.543  1.00  28.73      8
ATOM   14909  C   SER G 752      65.192  62.301  48.991  1.00  42.78      6
ATOM   14910  O   SER G 752      65.996  62.931  49.657  1.00  43.79      8
ATOM   14911  N   SER G 753      64.321  61.439  49.517  1.00  26.53      7
ATOM   14912  CA  SER G 753      64.231  61.172  50.959  1.00  26.13      6
ATOM   14913  CB  SER G 753      64.985  59.903  51.320  1.00  29.71      6
ATOM   14914  OG  SER G 753      65.030  59.763  52.721  1.00  27.27      8
ATOM   14915  C   SER G 753      64.759  62.312  51.804  1.00  26.42      6
ATOM   14916  O   SER G 753      63.997  62.995  52.471  1.00  26.57      8
ATOM   14917  N   PHE G 754      66.072  62.493  51.793  1.00  36.84      7
ATOM   14918  CA  PHE G 754      66.709  63.587  52.512  1.00  38.63      6
ATOM   14919  CB  PHE G 754      68.147  63.775  51.997  1.00  47.55      6
ATOM   14920  CG  PHE G 754      69.144  64.147  53.061  1.00  49.17      6
ATOM   14921  CD1 PHE G 754      70.449  63.677  52.996  1.00  49.98      6
ATOM   14922  CD2 PHE G 754      68.778  64.934  54.141  1.00  50.57      6
ATOM   14923  CE1 PHE G 754      71.370  63.978  53.996  1.00  50.17      6
ATOM   14924  CE2 PHE G 754      69.697  65.239  55.147  1.00  51.20      6
ATOM   14925  CZ  PHE G 754      70.993  64.756  55.071  1.00  50.82      6
ATOM   14926  C   PHE G 754      65.887  64.845  52.206  1.00  39.18      6
ATOM   14927  O   PHE G 754      65.482  65.566  53.114  1.00  39.46      8
ATOM   14928  N   ALA G 755      65.625  65.078  50.921  1.00  30.87      7
ATOM   14929  CA  ALA G 755      64.868  66.243  50.463  1.00  31.35      6
ATOM   14930  CB  ALA G 755      64.803  66.260  48.943  1.00  58.86      6
ATOM   14931  C   ALA G 755      63.465  66.289  51.027  1.00  31.07      6
ATOM   14932  O   ALA G 755      62.848  67.347  51.106  1.00  31.27      8
ATOM   14933  N   GLN G 756      62.958  65.128  51.404  1.00  24.89      7
ATOM   14934  CA  GLN G 756      61.625  65.025  51.957  1.00  24.71      6
ATOM   14935  CB  GLN G 756      61.111  63.598  51.746  1.00  24.28      6
ATOM   14936  CG  GLN G 756      59.671  63.346  52.145  1.00  24.69      6
ATOM   14937  CD  GLN G 756      58.695  64.009  51.208  1.00  25.03      6
ATOM   14938  OE1 GLN G 756      58.925  64.069  50.002  1.00  24.26      8
ATOM   14939  NE2 GLN G 756      57.585  64.492  51.748  1.00  26.11      7
ATOM   14940  C   GLN G 756      61.709  65.358  53.448  1.00  25.94      6
ATOM   14941  O   GLN G 756      60.991  66.222  53.953  1.00  25.96      8
ATOM   14942  N   ALA G 757      62.608  64.675  54.146  1.00  51.89      7
ATOM   14943  CA  ALA G 757      62.765  64.876  55.575  1.00  52.36      6
```

267

```
ATOM  14944  CB   ALA G 757    63.846  63.973  56.126  1.00 33.89    6
ATOM  14945  C    ALA G 757    63.090  66.308  55.900  1.00 52.19    8
ATOM  14946  O    ALA G 757    62.688  66.799  56.944  1.00 52.90    8
ATOM  14947  N    GLU G 758    63.809  66.990  55.019  1.00 39.08    7
ATOM  14948  CA   GLU G 758    64.162  68.373  55.313  1.00 39.81    6
ATOM  14949  CB   GLU G 758    65.576  68.712  54.805  1.00 54.36    6
ATOM  14950  CG   GLU G 758    65.834  68.472  53.329  1.00 58.27    6
ATOM  14951  CD   GLU G 758    67.213  68.949  52.906  1.00 59.69    6
ATOM  14952  OE1  GLU G 758    68.185  68.697  53.652  1.00 60.05    8
ATOM  14953  OE2  GLU G 758    67.327  69.566  51.825  1.00 61.43    8
ATOM  14954  C    GLU G 758    63.150  69.372  54.789  1.00 38.43    6
ATOM  14955  O    GLU G 758    63.213  70.555  55.092  1.00 39.11    8
ATOM  14956  N    ALA G 759    62.206  68.907  53.999  1.00 30.91    7
ATOM  14957  CA   ALA G 759    61.202  69.823  53.519  1.00 30.09    6
ATOM  14958  CB   ALA G 759    60.930  69.593  52.057  1.00 40.69    6
ATOM  14959  C    ALA G 759    59.956  69.566  54.341  1.00 30.03    6
ATOM  14960  O    ALA G 759    58.867  69.952  53.941  1.00 28.91    8
ATOM  14961  N    ARG G 760    60.133  68.901  55.483  1.00 50.71    7
ATOM  14962  CA   ARG G 760    59.027  68.591  56.389  1.00 51.90    6
ATOM  14963  CB   ARG G 760    58.376  67.252  56.015  1.00 69.53    6
ATOM  14964  CG   ARG G 760    59.276  66.045  56.186  1.00 73.92    6
ATOM  14965  CD   ARG G 760    58.511  64.739  56.035  1.00 77.04    6
ATOM  14966  NE   ARG G 760    57.452  64.577  57.029  1.00 80.23    7
ATOM  14967  CZ   ARG G 760    56.795  63.437  57.206  1.00 82.53    6
ATOM  14968  NH1  ARG G 760    57.103  62.391  56.457  1.00 81.99.   7
ATOM  14969  NH2  ARG G 760    55.839  63.330  58.119  1.00 84.32    7
ATOM  14970  C    ARG G 760    59.445  68.560  57.870  1.00 51.26    6
ATOM  14971  O    ARG G 760    58.798  67.920  58.702  1.00 51.59    8
ATOM  14972  N    ILE G 761    60.533  69.247  58.192  1.00 75.37    7
ATOM  14973  CA   ILE G 761    61.030  69.334  59.561  1.00 73.54    6
ATOM  14974  CB   ILE G 761    62.199  68.341  59.812  1.00 18.31    6
ATOM  14975  CG2  ILE G 761    63.146  68.851  60.906  1.00 17.14    6
ATOM  14976  CG1  ILE G 761    61.624  66.981  60.185  1.00 15.32    6
ATOM  14977  CD1  ILE G 761    62.660  66.013  60.667  1.00 14.10    6
ATOM  14978  C    ILE G 761    61.516  70.760  59.688  1.00 73.70    6
ATOM  14979  O    ILE G 761    61.585  71.333  60.770  1.00 74.84    8
ATOM  14980  N    GLN G 762    61.829  71.340  58.547  1.00 33.05    7
ATOM  14981  CA   GLN G 762    62.296  72.695  58.529  1.00 32.66    6
ATOM  14982  CB   GLN G 762    63.647  72.785  57.828  1.00 25.09    6
ATOM  14983  CG   GLN G 762    64.372  71.438  57.709  1.00 25.21    6
ATOM  14984  CD   GLN G 762    65.869  71.568  57.457  1.00 24.08    6
ATOM  14985  OE1  GLN G 762    66.326  72.311  56.573  1.00 21.31    8
ATOM  14986  NE2  GLN G 762    66.637  70.834  58.238  1.00 22.16    7
ATOM  14987  C    GLN G 762    61.299  73.574  57.821  1.00 32.37    6
ATOM  14988  O    GLN G 762    61.004  74.646  58.323  1.00 33.51    8
ATOM  14989  N    MET G 763    60.761  73.131  56.678  1.00 19.86    7
ATOM  14990  CA   MET G 763    59.813  73.963  55.929  1.00 18.23    6
ATOM  14991  CB   MET G 763    60.396  74.329  54.552  1.00 32.01    6
ATOM  14992  CG   MET G 763    60.883  73.195  53.672  1.00 33.31    6
ATOM  14993  SD   MET G 763    61.784  73.838  52.207  1.00 36.23   16
ATOM  14994  CE   MET G 763    60.664  73.538  50.886  1.00 36.79    6
ATOM  14995  C    MET G 763    58.347  73.571  55.761  1.00 17.68    6
ATOM  14996  O    MET G 763    57.710  73.994  54.808  1.00 16.85    8
ATOM  14997  N    LEU G 764    57.800  72.793  56.691  1.00 34.27    7
ATOM  14998  CA   LEU G 764    56.380  72.400  56.651  1.00 33.31    6
ATOM  14999  CB   LEU G 764    56.139  71.158  57.515  1.00 13.87    6
```

268

```
ATOM  15000  CG   LEU G 764     54.721  71.047  58.039  1.00  13.87      6
ATOM  15001  CD1  LEU G 764     53.813  70.768  56.908  1.00  13.87      6
ATOM  15002  CD2  LEU G 764     54.618  69.952  59.034  1.00  13.87      6
ATOM  15003  C    LEU G 764     55.545  73.557  57.196  1.00  33.08      6
ATOM  15004  O    LEU G 764     55.859  74.123  58.239  1.00  32.01      8
ATOM  15005  N    SER G 765     54.469  73.906  56.516  1.00  41.12      7
ATOM  15006  CA   SER G 765     53.680  75.025  56.992  1.00  42.05      6
ATOM  15007  CB   SER G 765     52.407  75.205  56.157  1.00  15.01      6
ATOM  15008  OG   SER G 765     51.395  74.276  56.484  1.00  13.87      8
ATOM  15009  C    SER G 765     53.305  74.919  58.455  1.00  43.52      6
ATOM  15010  O    SER G 765     53.170  75.933  59.133  1.00  45.29      8
ATOM  15011  N    ALA G 766     53.159  73.700  58.953  1.00  15.35      7
ATOM  15012  CA   ALA G 766     52.753  73.506  60.342  1.00  17.16      6
ATOM  15013  CB   ALA G 766     52.348  72.050  60.564  1.00120.56      6
ATOM  15014  C    ALA G 766     53.791  73.918  61.386  1.00  18.99      6
ATOM  15015  O    ALA G 766     53.437  74.151  62.548  1.00  17.29      8
ATOM  15016  N    HIS G 767     55.064  73.991  60.992  1.00  66.55      7
ATOM  15017  CA   HIS G 767     56.117  74.376  61.930  1.00  68.12      6
ATOM  15018  CB   HIS G 767     57.291  73.388  61.908  1.00  38.10      6
ATOM  15019  CG   HIS G 767     56.904  71.953  61.729  1.00  40.34      6
ATOM  15020  CD2  HIS G 767     57.309  71.033  60.820  1.00  39.96      6
ATOM  15021  ND1  HIS G 767     56.044  71.295  62.581  1.00  41.67      7
ATOM  15022  CE1  HIS G 767     55.936  70.033  62.204  1.00  41.91      6
ATOM  15023  NE2  HIS G 767     56.695  69.849  61.139  1.00  41.62      7
ATOM  15024  C    HIS G 767     56.694  75.755  61.606  1.00  69.05      6
ATOM  15025  O    HIS G 767     56.382  76.765  62.254  1.00  68.74      8
ATOM  15026  N    ASN G 768     57.550  75.779  60.590  1.00  37.53      7
ATOM  15027  CA   ASN G 768     58.225  77.004  60.185  1.00  38.30      6
ATOM  15028  CB   ASN G 768     59.317  76.685  59.161  1.00  98.05      6
ATOM  15029  CG   ASN G 768     60.362  77.783  59.058  1.00101.19      6
ATOM  15030  OD1  ASN G 768     60.138  78.818  58.429  1.00103.81      8
ATOM  15031  ND2  ASN G 768     61.511  77.564  59.694  1.00103.05      7
ATOM  15032  C    ASN G 768     57.293  78.064  59.636  1.00  36.76      6
ATOM  15033  O    ASN G 768     57.619  78.753  58.668  1.00  35.44      8
ATOM  15034  N    LEU G 769     56.131  78.193  60.259  1.00  56.17      7
ATOM  15035  CA   LEU G 769     55.176  79.196  59.836  1.00  57.04      6
ATOM  15036  CB   LEU G 769     53.864  78.549  59.388  1.00112.18      6
ATOM  15037  CG   LEU G 769     53.270  79.078  58.072  1.00113.89      6
ATOM  15038  CD1  LEU G 769     52.035  78.269  57.700  1.00113.61      6
ATOM  15039  CD2  LEU G 769     52.928  80.562  58.206  1.00114.19      6
ATOM  15040  C    LEU G 769     54.955  80.047  61.061  1.00  56.62      6
ATOM  15041  O    LEU G 769     55.168  81.256  61.044  1.00  57.60      8
ATOM  15042  N    LEU G 770     54.555  79.392  62.137  1.00  73.72      7
ATOM  15043  CA   LEU G 770     54.310  80.077  63.390  1.00  71.62      6
ATOM  15044  CB   LEU G 770     54.007  79.047  64.481  1.00  29.35      6
ATOM  15045  CG   LEU G 770     52.758  78.190  64.292  1.00  27.37      6
ATOM  15046  CD1  LEU G 770     52.853  77.386  63.004  1.00  26.30      6
ATOM  15047  CD2  LEU G 770     52.618  77.287  65.487  1.00  26.49      6
ATOM  15048  C    LEU G 770     55.530  80.916  63.776  1.00  70.73      6
ATOM  15049  O    LEU G 770     56.644  80.388  63.882  1.00  70.99      8
ATOM  15050  N    SER G 771     55.316  82.215  63.981  1.00  27.71      7
ATOM  15051  CA   SER G 771     56.400  83.122  64.353  1.00  25.01      6
ATOM  15052  CB   SER G 771     57.049  82.650  65.650  1.00  13.87      6
ATOM  15053  OG   SER G 771     56.082  82.467  66.658  1.00  13.87      8
ATOM  15054  C    SER G 771     57.424  83.114  63.222  1.00  26.50      6
ATOM  15055  O    SER G 771     58.329  82.288  63.213  1.00  26.59      8
```

269

```
ATOM   15056  N   PRO G 772      57.292  84.042  62.258  1.00 27.42      7
ATOM   15057  CD  PRO G 772      56.066  84.831  62.076  1.00128.55      6
ATOM   15058  CA  PRO G 772      58.143  84.214  61.079  1.00 27.59      6
ATOM   15059  CB  PRO G 772      57.135  84.535  60.016  1.00129.03      6
ATOM   15060  CG  PRO G 772      56.353  85.558  60.769  1.00129.81      6
ATOM   15061  C   PRO G 772      59.165  85.330  61.146  1.00 27.08      6
ATOM   15062  O   PRO G 772      58.833  86.451  61.521  1.00 24.70      8
ATOM   15063  N   ALA G 773      60.375  85.008  60.695  1.00 56.69      7
ATOM   15064  CA  ALA G 773      61.524  85.915  60.652  1.00 58.46      6
ATOM   15065  CB  ALA G 773      62.233  85.734  59.347  1.00 13.87      6
ATOM   15066  C   ALA G 773      61.281  87.412  60.903  1.00 60.27      6
ATOM   15067  O   ALA G 773      60.992  88.175  59.968  1.00 61.67      8
ATOM   15068  N   SER G 774      61.438  87.792  62.182  1.00 33.09      7
ATOM   15069  CA  SER G 774      61.279  89.150  62.740  1.00 29.64      6
ATOM   15070  CB  SER G 774      61.263  90.200  61.625  1.00 53.29      6
ATOM   15071  OG  SER G 774      62.431  90.074  60.828  1.00 52.85      8
ATOM   15072  C   SER G 774      60.069  89.325  63.690  1.00 27.63      6
ATOM   15073  O   SER G 774      59.120  90.071  63.414  1.00 24.23      8
ATOM   15074  N   GLY G 775      60.128  88.580  64.796  1.00 62.93      7
ATOM   15075  CA  GLY G 775      59.122  88.664  65.841  1.00 63.64      6
ATOM   15076  C   GLY G 775      57.859  87.819  65.969  1.00 63.06      6
ATOM   15077  O   GLY G 775      57.899  86.630  66.322  1.00 62.24      8
ATOM   15078  N   GLU G 776      56.737  88.497  65.708  1.00 27.39      7
ATOM   15079  CA  GLU G 776      55.366  87.991  65.807  1.00 27.23      6
ATOM   15080  CB  GLU G 776      54.381  89.125  65.494  1.00 60.04      6
ATOM   15081  CG  GLU G 776      55.003  90.468  65.196  1.00 63.57      6
ATOM   15082  CD  GLU G 776      54.732  91.461  66.299  1.00 66.43      6
ATOM   15083  OE1 GLU G 776      53.545  91.606  66.652  1.00 67.74      8
ATOM   15084  OE2 GLU G 776      55.690  92.091  66.810  1.00 69.61      8
ATOM   15085  C   GLU G 776      54.921  86.791  64.997  1.00 24.15      6
ATOM   15086  O   GLU G 776      55.639  86.298  64.147  1.00 23.57      8
ATOM   15087  N   PRO G 777      53.701  86.303  65.273  1.00 26.96      7
ATOM   15088  CD  PRO G 777      52.823  86.626  66.413  1.00 13.87      6
ATOM   15089  CA  PRO G 777      53.171  85.161  64.541  1.00 26.04      6
ATOM   15090  CB  PRO G 777      51.975  84.754  65.390  1.00 13.87      6
ATOM   15091  CG  PRO G 777      51.533  86.037  65.983  1.00 13.87      6
ATOM   15092  C   PRO G 777      52.763  85.608  63.142  1.00 25.66      6
ATOM   15093  O   PRO G 777      52.037  86.579  62.991  1.00 25.44      8
ATOM   15094  N   LEU G 778      53.240  84.915  62.119  1.00 21.61      7
ATOM   15095  CA  LEU G 778      52.882  85.265  60.757  1.00 22.03      6
ATOM   15096  CB  LEU G 778      53.896  84.714  59.766  1.00 13.87      6
ATOM   15097  CG  LEU G 778      53.949  85.275  58.354  1.00 13.87      6
ATOM   15098  CD1 LEU G 778      52.606  85.907  58.074  1.00 13.87      6
ATOM   15099  CD2 LEU G 778      55.059  86.298  58.184  1.00 13.87      6
ATOM   15100  C   LEU G 778      51.555  84.585  60.517  1.00 24.64      6
ATOM   15101  O   LEU G 778      50.676  85.144  59.860  1.00 25.71      8
ATOM   15102  N   ALA G 779      51.435  83.368  61.058  1.00 36.17      7
ATOM   15103  CA  ALA G 779      50.227  82.541  60.952  1.00 36.16      6
ATOM   15104  CB  ALA G 779      50.592  81.050  61.005  1.00 14.38      6
ATOM   15105  C   ALA G 779      49.277  82.875  62.088  1.00 35.75      6
ATOM   15106  O   ALA G 779      49.321  82.261  63.149  1.00 35.75      8
ATOM   15107  N   LYS G 780      48.414  83.849  61.862  1.00 23.74      7
ATOM   15108  CA  LYS G 780      47.492  84.242  62.900  1.00 24.26      6
ATOM   15109  CB  LYS G 780      47.791  85.667  63.342  1.00 29.93      6
ATOM   15110  CG  LYS G 780      47.427  86.705  62.292  1.00 31.31      6
ATOM   15111  CD  LYS G 780      48.046  88.057  62.595  1.00 32.06      6
```

```
ATOM  15112  CE   LYS G 780      49.556  88.013  62.446  1.00  32.04      6
ATOM  15113  NZ   LYS G 780      49.938  87.535  61.086  1.00  30.99      7
ATOM  15114  C    LYS G 780      46.123  84.194  62.280  1.00  23.69      6
ATOM  15115  O    LYS G 780      46.017  84.166  61.048  1.00  24.61      8
ATOM  15116  N    PRO G 781      45.055  84.161  63.114  1.00  20.33      7
ATOM  15117  CD   PRO G 781      45.042  83.954  64.573  1.00  13.87      6
ATOM  15118  CA   PRO G 781      43.693  84.124  62.573  1.00  19.24      6
ATOM  15119  CB   PRO G 781      42.820  84.011  63.823  1.00  13.87      6
ATOM  15120  CG   PRO G 781      43.693  84.461  64.942  1.00  13.87      6
ATOM  15121  C    PRO G 781      43.490  85.411  61.812  1.00  17.87      6
ATOM  15122  O    PRO G 781      44.144  86.404  62.122  1.00  17.15      8
ATOM  15123  N    SER G 782      42.613  85.412  60.820  1.00  15.44      7
ATOM  15124  CA   SER G 782      42.439  86.633  60.064  1.00  17.28      6
ATOM  15125  CB   SER G 782      43.510  86.724  58.995  1.00  60.50      6
ATOM  15126  OG   SER G 782      43.341  85.682  58.050  1.00  65.71      8
ATOM  15127  C    SER G 782      41.088  86.817  59.406  1.00  18.24      6
ATOM  15128  O    SER G 782      40.214  85.970  59.525  1.00  18.07      8
ATOM  15129  N    ALA G 783      40.952  87.948  58.711  1.00  45.23      7
ATOM  15130  CA   ALA G 783      39.751  88.379  57.990  1.00  46.50      6
ATOM  15131  CB   ALA G 783      40.169  88.948  56.626  1.00  37.16      6
ATOM  15132  C    ALA G 783      38.647  87.345  57.795  1.00  46.84      6
ATOM  15133  O    ALA G 783      38.633  86.670  56.772  1.00  47.76      8
ATOM  15134  N    ASP G 784      37.722  87.248  58.753  1.00  36.67      7
ATOM  15135  CA   ASP G 784      36.586  86.305  58.719  1.00  37.55      6
ATOM  15136  CB   ASP G 784      36.595  85.430  57.456  1.00  49.98      6
ATOM  15137  CG   ASP G 784      35.200  85.233  56.861  1.00  51.36      6
ATOM  15138  OD1  ASP G 784      34.285  84.851  57.612  1.00  52.12      8
ATOM  15139  OD2  ASP G 784      35.013  85.447  55.641  1.00  52.33      8
ATOM  15140  C    ASP G 784      36.615  85.408  59.947  1.00  37.15      6
ATOM  15141  O    ASP G 784      35.579  85.005  60.470  1.00  38.29      8
ATOM  15142  N    ILE G 785      37.815  85.076  60.393  1.00  41.46      7
ATOM  15143  CA   ILE G 785      37.964  84.264  61.577  1.00  39.70      6
ATOM  15144  CB   ILE G 785      39.382  83.693  61.696  1.00  15.05      6
ATOM  15145  CG2  ILE G 785      39.507  82.869  62.970  1.00  14.47      6
ATOM  15146  CG1  ILE G 785      39.700  82.871  60.452  1.00  15.58      6
ATOM  15147  CD1  ILE G 785      40.778  81.822  60.660  1.00  17.48      6
ATOM  15148  C    ILE G 785      37.748  85.247  62.706  1.00  39.86      6
ATOM  15149  O    ILE G 785      36.954  85.030  63.611  1.00  40.10      8
ATOM  15150  N    ILE G 786      38.454  86.358  62.632  1.00  24.73      7
ATOM  15151  CA   ILE G 786      38.349  87.359  63.661  1.00  23.79      6
ATOM  15152  CB   ILE G 786      39.362  88.467  63.418  1.00  15.20      6
ATOM  15153  CG2  ILE G 786      39.425  89.404  64.594  1.00  16.33      6
ATOM  15154  CG1  ILE G 786      40.737  87.876  63.226  1.00  14.70      6
ATOM  15155  CD1  ILE G 786      41.661  88.878  62.603  1.00  18.15      6
ATOM  15156  C    ILE G 786      36.949  87.954  63.663  1.00  23.11      6
ATOM  15157  O    ILE G 786      36.513  88.534  64.656  1.00  21.58      8
ATOM  15158  N    LEU G 787      36.231  87.811  62.556  1.00  38.69      7
ATOM  15159  CA   LEU G 787      34.886  88.378  62.478  1.00  38.51      6
ATOM  15160  CB   LEU G 787      34.371  88.324  61.045  1.00  19.03      6
ATOM  15161  CG   LEU G 787      33.002  88.954  60.859  1.00  18.73      6
ATOM  15162  CD1  LEU G 787      33.040  90.379  61.357  1.00  18.88      6
ATOM  15163  CD2  LEU G 787      32.622  88.911  59.391  1.00  18.73      6
ATOM  15164  C    LEU G 787      33.918  87.648  63.386  1.00  38.98      6
ATOM  15165  O    LEU G 787      33.109  88.263  64.086  1.00  38.48      8
ATOM  15166  N    GLY G 788      34.018  86.325  63.356  1.00  37.13      7
ATOM  15167  CA   GLY G 788      33.163  85.488  64.164  1.00  37.11      6
```

271

```
ATOM   15168  C    GLY G 788      33.623  85.461  65.599  1.00 37.38       6
ATOM   15169  O    GLY G 788      32.801  85.588  66.495  1.00 38.29       8
ATOM   15170  N    LEU G 789      34.926  85.311  65.827  1.00 19.19       7
ATOM   15171  CA   LEU G 789      35.446  85.256  67.184  1.00 19.28       6
ATOM   15172  CB   LEU G 789      36.948  85.004  67.164  1.00 13.87       6
ATOM   15173  CG   LEU G 789      37.247  83.521  67.008  1.00 13.87       6
ATOM   15174  CD1  LEU G 789      38.616  83.204  67.546  1.00 13.87       6
ATOM   15175  CD2  LEU G 789      36.217  82.736  67.781  1.00 13.87       6
ATOM   15176  C    LEU G 789      35.135  86.489  68.016  1.00 20.25       6
ATOM   15177  O    LEU G 789      35.162  86.459  69.242  1.00 19.66       8
ATOM   15178  N    TYR G 790      34.829  87.584  67.347  1.00 32.63       7
ATOM   15179  CA   TYR G 790      34.511  88.803  68.051  1.00 32.68       6
ATOM   15180  CB   TYR G 790      34.905  89.994  67.155  1.00 20.56       6
ATOM   15181  CG   TYR G 790      34.730  91.382  67.736  1.00 19.81       6
ATOM   15182  CD1  TYR G 790      33.483  92.005  67.727  1.00 22.03       6
ATOM   15183  CE1  TYR G 790      33.307  93.301  68.204  1.00 22.46       6
ATOM   15184  CD2  TYR G 790      35.801  92.087  68.243  1.00 17.80       6
ATOM   15185  CE2  TYR G 790      35.635  93.383  68.722  1.00 19.02       6
ATOM   15186  CZ   TYR G 790      34.383  93.993  68.700  1.00 21.73       6
ATOM   15187  OH   TYR G 790      34.192  95.295  69.150  1.00 20.21       8
ATOM   15188  C    TYR G 790      33.010  88.744  68.398  1.00 32.40       6
ATOM   15189  O    TYR G 790      32.654  88.781  69.570  1.00 32.10       8
ATOM   15190  N    TYR G 791      32.139  88.595  67.402  1.00 47.89       7
ATOM   15191  CA   TYR G 791      30.695  88.537  67.649  1.00 50.05       6
ATOM   15192  CB   TYR G 791      29.949  88.107  66.396  1.00 23.78       6
ATOM   15193  CG   TYR G 791      29.028  89.154  65.827  1.00 21.98       6
ATOM   15194  CD1  TYR G 791      29.541  90.288  65.219  1.00 21.56       6
ATOM   15195  CE1  TYR G 791      28.705  91.235  64.624  1.00 21.65       6
ATOM   15196  CD2  TYR G 791      27.647  88.983  65.842  1.00 19.64       6
ATOM   15197  CE2  TYR G 791      26.790  89.928  65.251  1.00 21.32       6
ATOM   15198  CZ   TYR G 791      27.331  91.058  64.635  1.00 21.76       6
ATOM   15199  OH   TYR G 791      26.539  92.001  63.995  1.00 18.83       8
ATOM   15200  C    TYR G 791      30.257  87.609  68.780  1.00 52.37       6
ATOM   15201  O    TYR G 791      29.189  87.799  69.365  1.00 53.82       8
ATOM   15202  N    ILE G 792      31.053  86.589  69.071  1.00 30.73       7
ATOM   15203  CA   ILE G 792      30.719  85.650  70.138  1.00 32.10       6
ATOM   15204  CB   ILE G 792      31.011  84.186  69.690  1.00100.62       6
ATOM   15205  CG2  ILE G 792      30.773  83.222  70.825  1.00102.54       6
ATOM   15206  CG1  ILE G 792      30.070  83.778  68.556  1.00103.50       6
ATOM   15207  CD1  ILE G 792      30.211  84.589  67.292  1.00106.63       6
ATOM   15208  C    ILE G 792      31.600  86.032  71.319  1.00 31.58       6
ATOM   15209  O    ILE G 792      32.148  85.177  72.011  1.00 33.20       8
ATOM   15210  N    THR G 793      31.732  87.336  71.543  1.00 27.56       7
ATOM   15211  CA   THR G 793      32.596  87.848  72.601  1.00 26.55       6
ATOM   15212  CB   THR G 793      34.116  87.721  72.218  1.00 21.55       6
ATOM   15213  OG1  THR G 793      34.337  86.565  71.415  1.00 19.90       8
ATOM   15214  CG2  THR G 793      34.979  87.608  73.438  1.00 20.39       6
ATOM   15215  C    THR G 793      32.359  89.343  72.814  1.00 27.96       6
ATOM   15216  O    THR G 793      33.289  90.048  73.193  1.00 28.18       8
ATOM   15217  N    GLN G 794      31.161  89.864  72.588  1.00 17.12       7
ATOM   15218  CA   GLN G 794      31.033  91.296  72.774  1.00 19.48       6
ATOM   15219  CB   GLN G 794      30.623  91.964  71.468  1.00 39.11       6
ATOM   15220  CG   GLN G 794      31.618  93.025  71.016  1.00 41.22       6
ATOM   15221  CD   GLN G 794      32.035  93.996  72.140  1.00 42.55       6
ATOM   15222  OE1  GLN G 794      32.500  93.569  73.203  1.00 43.82       8
ATOM   15223  NE2  GLN G 794      31.883  95.307  71.898  1.00 42.28       7
```

```
ATOM  15224  C    GLN G 794     30.159  91.828  73.892  1.00 21.63      6
ATOM  15225  O    GLN G 794     30.366  92.939  74.354  1.00 20.54      8
ATOM  15226  N    VAL G 795     29.205  91.047  74.363  1.00 61.89      7
ATOM  15227  CA   VAL G 795     28.301  91.531  75.401  1.00 65.70      6
ATOM  15228  CB   VAL G 795     29.035  92.249  76.559  1.00 13.87      6
ATOM  15229  CG1  VAL G 795     28.044  92.598  77.646  1.00 13.87      6
ATOM  15230  CG2  VAL G 795     30.146  91.401  77.103  1.00 13.87      6
ATOM  15231  C    VAL G 795     27.449  92.556  74.681  1.00 70.25      6
ATOM  15232  O    VAL G 795     27.701  92.876  73.520  1.00 72.46      8
ATOM  15233  N    ARG G 796     26.440  93.077  75.355  1.00 35.14      7
ATOM  15234  CA   ARG G 796     25.603  94.066  74.710  1.00 39.99      6
ATOM  15235  CB   ARG G 796     24.281  93.426  74.283  1.00 38.80      6
ATOM  15236  CG   ARG G 796     24.416  91.981  73.866  1.00 40.77      6
ATOM  15237  CD   ARG G 796     23.875  91.744  72.472  1.00 43.43      6
ATOM  15238  NE   ARG G 796     22.545  91.143  72.458  1.00 48.09      7
ATOM  15239  CZ   ARG G 796     21.994  90.595  71.376  1.00 50.25      6
ATOM  15240  NH1  ARG G 796     22.660  90.572  70.226  1.00 49.68      7
ATOM  15241  NH2  ARG G 796     20.778  90.070  71.438  1.00 53.16      7
ATOM  15242  C    ARG G 796     25.340  95.249  75.640  1.00 42.90      6
ATOM  15243  O    ARG G 796     25.840  95.308  76.772  1.00 43.38      8
ATOM  15244  N    ALA G 797     24.553  96.197  75.151  1.00 75.68      7
ATOM  15245  CA   ALA G 797     24.211  97.371  75.929  1.00 79.83      6
ATOM  15246  CB   ALA G 797     25.294  98.429  75.770  1.00 92.75      6
ATOM  15247  C    ALA G 797     22.863  97.897  75.452  1.00 82.83      6
ATOM  15248  O    ALA G 797     22.703  99.088  75.202  1.00 83.48      8
ATOM  15249  N    GLU G 798     21.899  96.993  75.316  1.00160.01      7
ATOM  15250  CA   GLU G 798     20.560  97.360  74.872  1.00163.85      6
ATOM  15251  CB   GLU G 798     19.584  96.212  75.158  1.00 76.15      6
ATOM  15252  CG   GLU G 798     19.689  95.632  76.568  1.00 78.05      6
ATOM  15253  CD   GLU G 798     20.062  94.158  76.570  1.00 78.36      6
ATOM  15254  OE1  GLU G 798     19.388  93.384  75.855  1.00 78.95      8
ATOM  15255  OE2  GLU G 798     21.020  93.776  77.287  1.00 78.32      8
ATOM  15256  C    GLU G 798     20.090  98.644  75.555  1.00165.80      6
ATOM  15257  O    GLU G 798     19.324  99.422  74.978  1.00167.14      8
ATOM  15258  N    ALA G 799     20.563  98.855  76.783  1.00 97.67      7
ATOM  15259  CA   ALA G 799     20.231 100.038  77.574  1.00 98.55      6
ATOM  15260  CB   ALA G 799     21.049 101.209  77.093  1.00 13.87      6
ATOM  15261  C    ALA G 799     18.752 100.419  77.566  1.00 99.18      6
ATOM  15262  O    ALA G 799     18.309 101.153  76.686  1.00100.21      8
ATOM  15263  N    ALA G 800     17.995  99.926  78.544  1.00139.95      7
ATOM  15264  CA   ALA G 800     16.572 100.246  78.641  1.00139.56      6
ATOM  15265  CB   ALA G 800     15.706  99.010  78.351  1.00 29.89      6
ATOM  15266  C    ALA G 800     16.289 100.761  80.040  1.00139.22      6
ATOM  15267  O    ALA G 800     15.296 100.395  80.662  1.00140.45      8
ATOM  15268  N    GLY G 801     17.181 101.607  80.536  1.00 64.62      7
ATOM  15269  CA   GLY G 801     16.999 102.165  81.860  1.00 63.95      6
ATOM  15270  C    GLY G 801     18.034 101.688  82.853  1.00 63.60      6
ATOM  15271  O    GLY G 801     18.453 100.534  82.803  1.00 64.35      8
ATOM  15272  N    ALA G 802     18.452 102.571  83.756  1.00 61.70      7
ATOM  15273  CA   ALA G 802     19.437 102.198  84.761  1.00 61.19      6
ATOM  15274  CB   ALA G 802     20.769 102.859  84.435  1.00 19.01      6
ATOM  15275  C    ALA G 802     18.977 102.539  86.195  1.00 61.23      6
ATOM  15276  O    ALA G 802     19.633 103.292  86.930  1.00 61.12      8
ATOM  15277  N    GLY G 803     17.847 101.942  86.582  1.00 34.86      7
ATOM  15278  CA   GLY G 803     17.264 102.158  87.897  1.00 34.00      6
ATOM  15279  C    GLY G 803     17.956 101.593  89.135  1.00 33.82      6
```

273

```
ATOM   15280  O    GLY G 803     19.181 101.457  89.189  1.00 32.87       8
ATOM   15281  N    ALA G 804     17.143 101.270  90.142  1.00 86.31       7
ATOM   15282  CA   ALA G 804     17.621 100.749  91.421  1.00 87.01       6
ATOM   15283  CB   ALA G 804     17.369 101.777  92.489  1.00 16.35       6
ATOM   15284  C    ALA G 804     16.988  99.416  91.828  1.00 88.19       6
ATOM   15285  O    ALA G 804     16.063  98.930  91.177  1.00 88.92       8
ATOM   15286  N    ALA G 805     17.478  98.833  92.917  1.00105.80       7
ATOM   15287  CA   ALA G 805     16.956  97.549  93.378  1.00107.76       6
ATOM   15288  CB   ALA G 805     17.444  96.432  92.450  1.00110.30       6
ATOM   15289  C    ALA G 805     17.356  97.237  94.818  1.00108.92       6
ATOM   15290  O    ALA G 805     16.500  97.105  95.701  1.00109.43       8
ATOM   15291  N    ALA G 806     18.664  97.095  95.024  1.00128.12       7
ATOM   15292  CA   ALA G 806     19.260  96.808  96.325  1.00128.33       6
ATOM   15293  CB   ALA G 806     18.490  97.527  97.435  1.00147.98       6
ATOM   15294  C    ALA G 806     19.401  95.328  96.666  1.00128.39       6
ATOM   15295  O    ALA G 806     20.503  94.783  96.595  1.00128.67       8
ATOM   15296  N    ALA G 807     18.289  94.683  97.023  1.00 99.16       7
ATOM   15297  CA   ALA G 807     18.302  93.270  97.421  1.00100.11       6
ATOM   15298  CB   ALA G 807     17.584  93.115  98.767  1.00156.30       6
ATOM   15299  C    ALA G 807     17.735  92.259  96.420  1.00100.11       6
ATOM   15300  O    ALA G 807     17.049  91.310  96.814  1.00 99.81       8
ATOM   15301  N    THR G 808     18.028  92.453  95.137  1.00 97.48       7
ATOM   15302  CA   THR G 808     17.547  91.546  94.099  1.00 96.79       6
ATOM   15303  CB   THR G 808     18.106  90.129  94.314  1.00 67.99       6
ATOM   15304  OG1  THR G 808     19.514  90.201  94.557  1.00 68.21       8
ATOM   15305  CG2  THR G 808     17.861  89.268  93.094  1.00 68.39       6
ATOM   15306  C    THR G 808     16.028  91.448  94.130  1.00 97.04       6
ATOM   15307  O    THR G 808     15.467  90.397  93.819  1.00 97.24       8
ATOM   15308  N    PRO G 809     15.338  92.540  94.500  1.00109.80       7
ATOM   15309  CD   PRO G 809     15.798  93.915  94.773  1.00123.02       6
ATOM   15310  CA   PRO G 809     13.876  92.474  94.548  1.00110.35       6
ATOM   15311  CB   PRO G 809     13.473  93.944  94.638  1.00122.89       6
ATOM   15312  CG   PRO G 809     14.589  94.532  95.448  1.00122.67       6
ATOM   15313  C    PRO G 809     13.243  91.761  93.359  1.00110.55       6
ATOM   15314  O    PRO G 809     13.919  91.423  92.384  1.00110.36       8
ATOM   15315  N    GLU G 810     11.937  91.532  93.459  1.00 61.22       7
ATOM   15316  CA   GLU G 810     11.194  90.872  92.405  1.00 61.61       6
ATOM   15317  CB   GLU G 810      9.689  90.968  92.665  1.00154.34       6
ATOM   15318  CG   GLU G 810      8.836  90.265  91.616  1.00156.04       6
ATOM   15319  CD   GLU G 810      7.352  90.397  91.889  1.00157.30       6
ATOM   15320  OE1  GLU G 810      6.925  90.022  93.002  1.00157.98       8
ATOM   15321  OE2  GLU G 810      6.616  90.869  90.995  1.00158.08       8
ATOM   15322  C    GLU G 810     11.539  91.579  91.113  1.00 61.85       6
ATOM   15323  O    GLU G 810     11.325  91.042  90.031  1.00 61.43       8
ATOM   15324  N    ALA G 811     12.077  92.790  91.246  1.00133.90       7
ATOM   15325  CA   ALA G 811     12.484  93.600  90.106  1.00134.51       6
ATOM   15326  CB   ALA G 811     13.454  94.685  90.555  1.00 98.09       6
ATOM   15327  C    ALA G 811     13.125  92.728  89.032  1.00134.99       6
ATOM   15328  O    ALA G 811     13.016  93.026  87.845  1.00135.02       8
ATOM   15329  N    ALA G 812     13.796  91.656  89.448  1.00141.80       7
ATOM   15330  CA   ALA G 812     14.418  90.738  88.501  1.00141.70       6
ATOM   15331  CB   ALA G 812     14.892  89.482  89.219  1.00 13.87       6
ATOM   15332  C    ALA G 812     13.348  90.382  87.475  1.00142.44       6
ATOM   15333  O    ALA G 812     13.531  90.572  86.274  1.00143.66       8
ATOM   15334  N    ALA G 813     12.223  89.877  87.969  1.00135.92       7
ATOM   15335  CA   ALA G 813     11.101  89.506  87.118  1.00136.06       6
```

```
ATOM   15336  CB  ALA G 813      10.391  88.280  87.687  1.00184.90      6
ATOM   15337  C   ALA G 813      10.128  90.678  87.018  1.00135.37      6
ATOM   15338  O   ALA G 813       9.376  90.794  86.050  1.00135.25      8
ATOM   15339  N   ALA G 814      10.134  91.537  88.033  1.00 90.29      7
ATOM   15340  CA  ALA G 814       9.261  92.695  88.021  1.00 89.49      6
ATOM   15341  CB  ALA G 814       9.516  93.574  89.229  1.00117.54      6
ATOM   15342  C   ALA G 814       9.666  93.405  86.755  1.00 88.89      6
ATOM   15343  O   ALA G 814       8.824  93.874  85.994  1.00 89.06      8
ATOM   15344  N   ALA G 815      10.972  93.463  86.524  1.00 78.06      7
ATOM   15345  CA  ALA G 815      11.489  94.095  85.321  1.00 77.59      6
ATOM   15346  CB  ALA G 815      13.009  94.105  85.330  1.00121.63      6
ATOM   15347  C   ALA G 815      10.977  93.266  84.155  1.00 77.33      6
ATOM   15348  O   ALA G 815      10.612  93.806  83.110  1.00 77.37      8
ATOM   15349  N   ALA G 816      10.956  91.948  84.347  1.00111.03      7
ATOM   15350  CA  ALA G 816      10.470  91.033  83.321  1.00111.59      6
ATOM   15351  CB  ALA G 816      10.541  89.591  83.813  1.00107.03      6
ATOM   15352  C   ALA G 816       9.030  91.416  83.024  1.00111.47      6
ATOM   15353  O   ALA G 816       8.094  90.840  83.584  1.00111.27      8
ATOM   15354  N   ALA G 817       8.871  92.401  82.145  1.00157.33      7
ATOM   15355  CA  ALA G 817       7.564  92.912  81.757  1.00157.32      6
ATOM   15356  CB  ALA G 817       7.049  93.865  82.833  1.00 82.47      6
ATOM   15357  C   ALA G 817       7.695  93.645  80.427  1.00157.25      6
ATOM   15358  O   ALA G 817       7.117  93.244  79.417  1.00157.22      8
ATOM   15359  N   ARG G 818       8.467  94.727  80.451  1.00 86.52      7
ATOM   15360  CA  ARG G 818       8.724  95.564  79.283  1.00 86.74      6
ATOM   15361  CB  ARG G 818       7.422  96.180  78.768  1.00118.96      6
ATOM   15362  CG  ARG G 818       6.868  97.250  79.685  1.00120.10      6
ATOM   15363  CD  ARG G 818       5.406  97.536  79.427  1.00121.14      6
ATOM   15364  NE  ARG G 818       4.857  98.381  80.481  1.00122.06      7
ATOM   15365  CZ  ARG G 818       3.562  98.497  80.739  1.00122.04      6
ATOM   15366  NH1 ARG G 818       2.683  97.820  80.016  1.00122.91      7
ATOM   15367  NH2 ARG G 818       3.149  99.279  81.723  1.00121.62      7
ATOM   15368  C   ARG G 818       9.670  96.668  79.758  1.00 86.63      6
ATOM   15369  O   ARG G 818       9.510  97.204  80.858  1.00 86.80      8
ATOM   15370  N   GLY G 819      10.655  97.014  78.938  1.00148.56      7
ATOM   15371  CA  GLY G 819      11.603  98.032  79.349  1.00147.45      6
ATOM   15372  C   GLY G 819      12.590  97.394  80.310  1.00146.54      6
ATOM   15373  O   GLY G 819      12.708  96.168  80.343  1.00146.84      8
ATOM   15374  N   ALA G 820      13.288  98.206  81.098  1.00 81.04      7
ATOM   15375  CA  ALA G 820      14.273  97.690  82.051  1.00 79.47      6
ATOM   15376  CB  ALA G 820      13.591  97.257  83.321  1.00 17.11      6
ATOM   15377  C   ALA G 820      15.042  96.515  81.466  1.00 78.95      6
ATOM   15378  O   ALA G 820      14.952  95.398  81.979  1.00 78.58      8
ATOM   15379  N   ALA G 821      15.788  96.768  80.392  1.00150.37      7
ATOM   15380  CA  ALA G 821      16.566  95.723  79.735  1.00149.29      6
ATOM   15381  CB  ALA G 821      16.970  96.154  78.341  1.00 55.90      6
ATOM   15382  C   ALA G 821      17.804  95.375  80.530  1.00148.41      6
ATOM   15383  O   ALA G 821      18.388  96.224  81.202  1.00148.78      8
ATOM   15384  N   ALA G 822      18.207  94.116  80.427  1.00 68.65      7
ATOM   15385  CA  ALA G 822      19.374  93.624  81.136  1.00 67.90      6
ATOM   15386  CB  ALA G 822      19.549  92.125  80.858  1.00 40.68      6
ATOM   15387  C   ALA G 822      20.661  94.403  80.793  1.00 67.30      6
ATOM   15388  O   ALA G 822      21.462  93.997  79.929  1.00 66.87      8
ATOM   15389  N   ALA G 823      20.849  95.523  81.490  1.00 61.01      7
ATOM   15390  CA  ALA G 823      22.018  96.360  81.291  1.00 60.21      6
ATOM   15391  CB  ALA G 823      22.116  96.768  79.831  1.00 39.99      6
```

275

```
ATOM   15392  C    ALA G 823      21.994  97.600  82.178  1.00 60.11       6
ATOM   15393  O    ALA G 823      21.244  98.537  81.911  1.00 60.12       8
ATOM   15394  N    ALA G 824      22.817  97.578  83.229  1.00 84.93       7
ATOM   15395  CA   ALA G 824      22.979  98.674  84.190  1.00 84.56       6
ATOM   15396  CB   ALA G 824      22.618 100.002  83.537  1.00 18.43       6
ATOM   15397  C    ALA G 824      22.254  98.533  85.540  1.00 84.27       6
ATOM   15398  O    ALA G 824      22.837  98.021  86.493  1.00 83.62       8
ATOM   15399  N    ALA G 825      21.007  99.004  85.619  1.00 81.05       7
ATOM   15400  CA   ALA G 825      20.191  98.957  86.844  1.00 81.12       6
ATOM   15401  CB   ALA G 825      18.902  98.205  86.575  1.00 39.65       6
ATOM   15402  C    ALA G 825      20.899  98.351  88.054  1.00 81.39       6
ATOM   15403  O    ALA G 825      21.201  97.161  88.064  1.00 82.09       8
ATOM   15404  N    ALA G 826      21.131  99.174  89.078  1.00104.37       7
ATOM   15405  CA   ALA G 826      21.832  98.766  90.306  1.00104.98       6
ATOM   15406  CB   ALA G 826      22.309 100.029  91.069  1.00 32.21       6
ATOM   15407  C    ALA G 826      21.081  97.834  91.275  1.00105.32       6
ATOM   15408  O    ALA G 826      19.953  97.413  91.016  1.00105.35       8
ATOM   15409  N    ALA G 827      21.745  97.514  92.387  1.00126.68       7
ATOM   15410  CA   ALA G 827      21.203  96.661  93.450  1.00127.15       6
ATOM   15411  CB   ALA G 827      20.952  95.238  92.936  1.00 28.33       6
ATOM   15412  C    ALA G 827      22.205  96.635  94.605  1.00127.62       6
ATOM   15413  O    ALA G 827      21.866  96.940  95.748  1.00127.49       8
ATOM   15414  N    VAL G 828      23.444  96.281  94.280  1.00 96.70       7
ATOM   15415  CA   VAL G 828      24.553  96.198  95.238  1.00 96.39       6
ATOM   15416  CB   VAL G 828      24.369  95.006  96.237  1.00123.09       6
ATOM   15417  CG1  VAL G 828      25.706  94.627  96.861  1.00122.85       6
ATOM   15418  CG2  VAL G 828      23.385  95.386  97.343  1.00122.31       6
ATOM   15419  C    VAL G 828      25.828  95.976  94.417  1.00 95.34       6
ATOM   15420  O    VAL G 828      26.952  96.125  94.917  1.00 94.78       8
ATOM   15421  N    ALA G 829      25.617  95.623  93.147  1.00146.54       7
ATOM   15422  CA   ALA G 829      26.684  95.355  92.179  1.00145.16       6
ATOM   15423  CB   ALA G 829      27.205  93.921  92.351  1.00155.29       6
ATOM   15424  C    ALA G 829      26.172  95.560  90.747  1.00143.43       6
ATOM   15425  O    ALA G 829      26.959  95.637  89.805  1.00143.34       8
ATOM   15426  N    ALA G 830      24.849  95.630  90.603  1.00 63.04       7
ATOM   15427  CA   ALA G 830      24.182  95.836  89.314  1.00 60.98       6
ATOM   15428  CB   ALA G 830      24.969  96.865  88.478  1.00 87.55       6
ATOM   15429  C    ALA G 830      23.910  94.573  88.479  1.00 59.04       6
ATOM   15430  O    ALA G 830      24.208  93.451  88.905  1.00 57.54       8
ATOM   15431  N    GLY G 831      23.314  94.789  87.300  1.00 46.63       7
ATOM   15432  CA   GLY G 831      22.996  93.722  86.361  1.00 46.34       6
ATOM   15433  C    GLY G 831      21.617  93.092  86.496  1.00 46.26       6
ATOM   15434  O    GLY G 831      21.237  92.687  87.595  1.00 47.43       8
ATOM   15435  N    ARG G 832      20.857  93.008  85.399  1.00 60.75       7
ATOM   15436  CA   ARG G 832      19.529  92.387  85.446  1.00 59.25       6
ATOM   15437  CB   ARG G 832      18.550  92.991  84.436  1.00 55.85       6
ATOM   15438  CG   ARG G 832      17.227  92.215  84.437  1.00 56.28       6
ATOM   15439  CD   ARG G 832      16.214  92.675  83.405  1.00 58.16       6
ATOM   15440  NE   ARG G 832      15.203  91.637  83.192  1.00 59.37       7
ATOM   15441  CZ   ARG G 832      14.202  91.710  82.316  1.00 59.76       6
ATOM   15442  NH1  ARG G 832      14.044  92.785  81.548  1.00 60.31       7
ATOM   15443  NH2  ARG G 832      13.372  90.685  82.191  1.00 58.80       7
ATOM   15444  C    ARG G 832      19.629  90.902  85.164  1.00 58.48       6
ATOM   15445  O    ARG G 832      18.679  90.151  85.385  1.00 58.45       8
ATOM   15446  N    ALA G 833      20.775  90.483  84.642  1.00 43.69       7
ATOM   15447  CA   ALA G 833      20.994  89.077  84.371  1.00 41.44       6
```

276

```
ATOM  15448  CB   ALA G 833      22.145  88.879  83.418  1.00 44.74      6
ATOM  15449  C    ALA G 833      21.308  88.453  85.717  1.00 40.98      6
ATOM  15450  O    ALA G 833      22.473  88.189  86.047  1.00 40.76      8
ATOM  15451  N    THR G 834      20.238  88.313  86.507  1.00 65.98      7
ATOM  15452  CA   THR G 834      20.220  87.681  87.833  1.00 64.42      6
ATOM  15453  CB   THR G 834      19.588  88.563  88.955  1.00 45.26      6
ATOM  15454  OG1  THR G 834      19.784  89.957  88.690  1.00 44.58      8
ATOM  15455  CG2  THR G 834      20.233  88.244  90.275  1.00 45.99      6
ATOM  15456  C    THR G 834      19.193  86.610  87.488  1.00 63.85      6
ATOM  15457  O    THR G 834      19.089  85.564  88.138  1.00 63.49      8
ATOM  15458  N    SER G 835      18.425  86.936  86.443  1.00 56.29      7
ATOM  15459  CA   SER G 835      17.391  86.082  85.870  1.00 55.86      6
ATOM  15460  CB   SER G 835      16.744  86.803  84.666  1.00 38.75      6
ATOM  15461  OG   SER G 835      15.703  86.062  84.030  1.00 37.23      8
ATOM  15462  C    SER G 835      18.174  84.848  85.430  1.00 55.42      6
ATOM  15463  O    SER G 835      18.355  83.918  86.212  1.00 55.90      8
ATOM  15464  N    VAL G 836      18.660  84.838  84.195  1.00 57.23      7
ATOM  15465  CA   VAL G 836      19.446  83.702  83.749  1.00 56.28      6
ATOM  15466  CB   VAL G 836      19.782  83.756  82.206  1.00 16.17      6
ATOM  15467  CG1  VAL G 836      20.072  82.329  81.704  1.00 15.03      6
ATOM  15468  CG2  VAL G 836      18.655  84.402  81.401  1.00 13.87      6
ATOM  15469  C    VAL G 836      20.749  83.800  84.564  1.00 58.01      6
ATOM  15470  O    VAL G 836      21.628  84.592  84.244  1.00 59.23      8
ATOM  15471  N    GLY G 837      20.855  83.026  85.638  1.00 36.53      7
ATOM  15472  CA   GLY G 837      22.060  83.057  86.450  1.00 38.40      6
ATOM  15473  C    GLY G 837      22.513  81.641  86.730  1.00 40.39      6
ATOM  15474  O    GLY G 837      22.492  81.195  87.878  1.00 39.49      8
ATOM  15475  N    ALA G 838      22.932  80.957  85.661  1.00 85.86      7
ATOM  15476  CA   ALA G 838      23.381  79.554  85.657  1.00 88.47      6
ATOM  15477  CB   ALA G 838      23.980  79.225  84.286  1.00 13.87      6
ATOM  15478  C    ALA G 838      24.315  79.048  86.766  1.00 91.15      6
ATOM  15479  O    ALA G 838      24.182  79.431  87.929  1.00 92.10      8
ATOM  15480  N    ALA G 839      25.249  78.168  86.409  1.00 80.78      7
ATOM  15481  CA   ALA G 839      26.157  77.606  87.403  1.00 84.32      6
ATOM  15482  CB   ALA G 839      25.361  76.824  88.413  1.00 81.40      6
ATOM  15483  C    ALA G 839      27.252  76.711  86.824  1.00 87.11      6
ATOM  15484  O    ALA G 839      28.266  77.201  86.328  1.00 88.40      8
ATOM  15485  N    ALA G 840      27.044  75.397  86.915  1.00114.09      7
ATOM  15486  CA   ALA G 840      27.993  74.400  86.415  1.00115.95      6
ATOM  15487  CB   ALA G 840      28.102  74.501  84.878  1.00 13.87      6
ATOM  15488  C    ALA G 840      29.378  74.530  87.076  1.00117.83      6
ATOM  15489  O    ALA G 840      29.822  75.631  87.404  1.00118.76      8
ATOM  15490  N    ALA G 841      30.056  73.401  87.275  1.00186.87      7
ATOM  15491  CA   ALA G 841      31.374  73.398  87.918  1.00187.60      6
ATOM  15492  CB   ALA G 841      31.305  72.612  89.230  1.00 86.19      6
ATOM  15493  C    ALA G 841      32.496  72.841  87.039  1.00188.21      6
ATOM  15494  O    ALA G 841      32.418  72.885  85.811  1.00188.43      8
ATOM  15495  N    ALA G 842      33.542  72.323  87.682  1.00167.88      7
ATOM  15496  CA   ALA G 842      34.689  71.753  86.978  1.00167.94      6
ATOM  15497  CB   ALA G 842      35.985  72.119  87.696  1.00 82.15      6
ATOM  15498  C    ALA G 842      34.575  70.237  86.853  1.00167.91      6
ATOM  15499  O    ALA G 842      35.566  69.514  86.982  1.00168.11      8
ATOM  15500  N    ALA G 843      33.356  69.766  86.612  1.00121.25      7
ATOM  15501  CA   ALA G 843      33.087  68.342  86.446  1.00120.66      6
ATOM  15502  CB   ALA G 843      31.972  67.907  87.393  1.00111.74      6
ATOM  15503  C    ALA G 843      32.671  68.109  84.990  1.00120.68      6
```

277

```
ATOM  15504  O    ALA G 843      33.176  67.200  84.322  1.00120.87      8
ATOM  15505  N    ALA G 844      31.756  68.951  84.510  1.00208.87      7
ATOM  15506  CA   ALA G 844      31.255  68.884  83.139  1.00208.87      6
ATOM  15507  CB   ALA G 844      29.797  68.419  83.128  1.00 47.41      6
ATOM  15508  C    ALA G 844      31.365  70.259  82.485  1.00208.87      6
ATOM  15509  O    ALA G 844      31.110  70.407  81.289  1.00208.87      8
ATOM  15510  N    ALA G 845      31.743  71.257  83.284  1.00194.04      7
ATOM  15511  CA   ALA G 845      31.896  72.637  82.820  1.00192.47      6
ATOM  15512  CB   ALA G 845      32.714  72.664  81.533  1.00131.73      6
ATOM  15513  C    ALA G 845      30.532  73.299  82.601  1.00190.88      6
ATOM  15514  O    ALA G 845      29.496  72.648  82.738  1.00192.41      8
ATOM  15515  N    PRO G 846      30.512  74.606  82.271  1.00 50.98      7
ATOM  15516  CD   PRO G 846      31.637  75.540  82.096  1.00103.52      6
ATOM  15517  CA   PRO G 846      29.238  75.297  82.046  1.00 48.41      6
ATOM  15518  CB   PRO G 846      29.656  76.756  81.952  1.00102.16      6
ATOM  15519  CG   PRO G 846      30.994  76.659  81.311  1.00103.17      6
ATOM  15520  C    PRO G 846      28.568  74.806  80.770  1.00 46.22      6
ATOM  15521  O    PRO G 846      28.186  75.603  79.909  1.00 45.30      8
ATOM  15522  N    ALA G 847      28.438  73.485  80.665  1.00 85.27      7
ATOM  15523  CA   ALA G 847      27.828  72.823  79.517  1.00 82.84      6
ATOM  15524  CB   ALA G 847      28.130  71.327  79.563  1.00 13.87      6
ATOM  15525  C    ALA G 847      26.323  73.048  79.496  1.00 81.47      6
ATOM  15526  O    ALA G 847      25.632  72.617  78.576  1.00 81.55      8
ATOM  15527  N    ALA G 848      25.822  73.723  80.521  1.00 47.32      7
ATOM  15528  CA   ALA G 848      24.402  74.011  80.632  1.00 46.22      6
ATOM  15529  CB   ALA G 848      23.932  73.760  82.057  1.00115.44      6
ATOM  15530  C    ALA G 848      24.146  75.455  80.250  1.00 45.01      6
ATOM  15531  O    ALA G 848      23.040  75.816  79.851  1.00 44.26      8
ATOM  15532  N    ALA G 849      25.181  76.278  80.391  1.00 78.01      7
ATOM  15533  CA   ALA G 849      25.098  77.695  80.061  1.00 76.65      6
ATOM  15534  CB   ALA G 849      26.427  78.371  80.344  1.00 92.48      6
ATOM  15535  C    ALA G 849      24.774  77.791  78.589  1.00 75.26      6
ATOM  15536  O    ALA G 849      23.811  78.440  78.184  1.00 74.63      8
ATOM  15537  N    LEU G 850      25.600  77.126  77.795  1.00 56.81      7
ATOM  15538  CA   LEU G 850      25.427  77.097  76.360  1.00 57.05      6
ATOM  15539  CB   LEU G 850      26.667  76.471  75.731  1.00 59.78      6
ATOM  15540  CG   LEU G 850      27.960  77.154  76.181  1.00 60.71      6
ATOM  15541  CD1  LEU G 850      29.175  76.290  75.879  1.00 60.01      6
ATOM  15542  CD2  LEU G 850      28.059  78.495  75.484  1.00 60.96      6
ATOM  15543  C    LEU G 850      24.152  76.317  75.989  1.00 57.30      6
ATOM  15544  O    LEU G 850      23.514  76.616  74.980  1.00 59.09      8
ATOM  15545  N    LEU G 851      23.793  75.313  76.793  1.00 48.82      7
ATOM  15546  CA   LEU G 851      22.573  74.538  76.555  1.00 48.00      6
ATOM  15547  CB   LEU G 851      22.480  73.346  77.532  1.00 43.03      6
ATOM  15548  CG   LEU G 851      21.160  72.812  78.156  1.00 41.25      6
ATOM  15549  CD1  LEU G 851      20.113  72.546  77.095  1.00 38.43      6
ATOM  15550  CD2  LEU G 851      21.449  71.525  78.960  1.00 39.11      6
ATOM  15551  C    LEU G 851      21.436  75.514  76.806  1.00 48.73      6
ATOM  15552  O    LEU G 851      20.439  75.532  76.081  1.00 48.56      8
ATOM  15553  N    ALA G 852      21.605  76.332  77.842  1.00 76.04      7
ATOM  15554  CA   ALA G 852      20.619  77.340  78.201  1.00 76.01      6
ATOM  15555  CB   ALA G 852      21.040  78.050  79.476  1.00114.18      6
ATOM  15556  C    ALA G 852      20.585  78.318  77.042  1.00 75.57      6
ATOM  15557  O    ALA G 852      19.539  78.878  76.700  1.00 76.61      8
ATOM  15558  N    VAL G 853      21.754  78.502  76.443  1.00 47.51      7
ATOM  15559  CA   VAL G 853      21.933  79.385  75.305  1.00 46.91      6
```

278

```
ATOM  15560  CB   VAL G 853    23.402  79.614  75.066  1.00 27.72      6
ATOM  15561  CG1  VAL G 853    23.625  80.212  73.694  1.00 27.61      6
ATOM  15562  CG2  VAL G 853    23.925  80.503  76.145  1.00 27.86      6
ATOM  15563  C    VAL G 853    21.319  78.817  74.032  1.00 47.80      6
ATOM  15564  O    VAL G 853    20.977  79.565  73.105  1.00 47.89      8
ATOM  15565  N    ALA G 854    21.212  77.492  73.980  1.00 44.35      7
ATOM  15566  CA   ALA G 854    20.623  76.838  72.831  1.00 44.74      6
ATOM  15567  CB   ALA G 854    20.693  75.338  72.976  1.00 13.87      6
ATOM  15568  C    ALA G 854    19.190  77.307  72.875  1.00 45.80      6
ATOM  15569  O    ALA G 854    18.928  78.487  72.636  1.00 46.51      8
ATOM  15570  N    HIS G 855    18.274  76.399  73.207  1.00 34.17      7
ATOM  15571  CA   HIS G 855    16.848  76.715  73.296  1.00 34.09      6
ATOM  15572  CB   HIS G 855    16.262  76.104  74.564  1.00 73.08      6
ATOM  15573  CG   HIS G 855    16.820  74.760  74.900  1.00 75.47      6
ATOM  15574  CD2  HIS G 855    17.886  74.084  74.409  1.00 76.75      6
ATOM  15575  ND1  HIS G 855    16.277  73.956  75.876  1.00 77.24      7
ATOM  15576  CE1  HIS G 855    16.982  72.844  75.973  1.00 78.37      6
ATOM  15577  NE2  HIS G 855    17.964  72.896  75.092  1.00 78.10      7
ATOM  15578  C    HIS G 855    16.655  78.231  73.325  1.00 34.10      6
ATOM  15579  O    HIS G 855    16.839  78.867  74.369  1.00 32.27      8
ATOM  15580  N    GLY G 856    16.309  78.785  72.163  1.00 57.69      7
ATOM  15581  CA   GLY G 856    16.102  80.216  71.992  1.00 60.89      6
ATOM  15582  C    GLY G 856    16.225  81.136  73.193  1.00 62.46      6
ATOM  15583  O    GLY G 856    15.353  81.975  73.412  1.00 62.26      8
ATOM  15584  N    LEU G 857    17.310  81.007  73.952  1.00131.92      7
ATOM  15585  CA   LEU G 857    17.525  81.826  75.141  1.00132.97      6
ATOM  15586  CB·  LEU G 857    17.232  81.007  76.396  1.00 54.85      6
ATOM  15587  CG   LEU G 857    16.472  81.751  77.493  1.00 55.64      6
ATOM  15588  CD1  LEU G 857    16.724  83.264  77.381  1.00 55.61      6
ATOM  15589  CD2  LEU G 857    14.984  81.437  77.365  1.00 55.37      6
ATOM  15590  C    LEU G 857    18.972  82.302  75.173  1.00133.58      6
ATOM  15591  O    LEU G 857    19.717  82.017  74.235  1.00134.35      8
ATOM  15592  N    LEU G 858    19.368  82.999  76.245  1.00 76.53      7
ATOM  15593  CA   LEU G 858    20.738  83.520  76.381  1.00 76.29      6
ATOM  15594  CB   LEU G 858    21.576  82.649  77.314  1.00 53.66      6
ATOM  15595  CG   LEU G 858    21.318  82.796  78.812  1.00 55.24      6
ATOM  15596  CD1  LEU G 858    22.412  82.050  79.600  1.00 56.31      6
ATOM  15597  CD2  LEU G 858    21.304  84.273  79.187  1.00 54.77      6
ATOM  15598  C    LEU G 858    21.387  83.550  75.014  1.00 75.57      6
ATOM  15599  O    LEU G 858    22.021  82.581  74.595  1.00 75.87      8
ATOM  15600  N    ASP G 859    21.229  84.670  74.324  1.00 64.08      7
ATOM  15601  CA   ASP G 859    21.730  84.797  72.976  1.00 62.99      6
ATOM  15602  CB   ASP G 859    21.503  86.205  72.462  1.00 36.94      6
ATOM  15603  CG   ASP G 859    21.144  86.214  71.006  1.00 37.04      6
ATOM  15604  OD1  ASP G 859    21.487  85.235  70.326  1.00 37.03      8
ATOM  15605  OD2  ASP G 859    20.529  87.186  70.534  1.00 37.67      8
ATOM  15606  C    ASP G 859    23.166  84.404  72.707  1.00 63.17      6
ATOM  15607  O    ASP G 859    23.502  84.108  71.561  1.00 63.59      8
ATOM  15608  N    LEU G 860    24.012  84.394  73.735  1.00 67.02      7
ATOM  15609  CA   LEU G 860    25.418  84.030  73.547  1.00 65.71      6
ATOM  15610  CB   LEU G 860    25.557  82.766  72.703  1.00 17.81      6
ATOM  15611  CG   LEU G 860    26.786  82.676  71.802  1.00 14.86      6
ATOM  15612  CD1  LEU G 860    27.904  82.080  72.574  1.00 13.87      6
ATOM  15613  CD2  LEU G 860    26.486  81.822  70.591  1.00 15.21      6
ATOM  15614  C    LEU G 860    26.142  85.142  72.837  1.00 66.23      6
ATOM  15615  O    LEU G 860    27.361  85.261  72.968  1.00 67.08      8
```

```
ATOM   15616  N   GLN G 861      25.396  85.939  72.064  1.00 72.96      7
ATOM   15617  CA  GLN G 861      25.959  87.077  71.335  1.00 71.46      6
ATOM   15618  CB  GLN G 861      24.860  87.864  70.619  1.00 78.31      6
ATOM   15619  CG  GLN G 861      24.539  87.318  69.231  1.00 81.15      6
ATOM   15620  CD  GLN G 861      23.057  87.374  68.877  1.00 83.32      6
ATOM   15621  OE1 GLN G 861      22.379  88.375  69.117  1.00 85.90      8
ATOM   15622  NE2 GLN G 861      22.555  86.296  68.287  1.00 82.53      7
ATOM   15623  C   GLN G 861      26.576  87.892  72.437  1.00 69.40      6
ATOM   15624  O   GLN G 861      27.116  88.972  72.219  1.00 67.89      8
ATOM   15625  N   ALA G 862      26.455  87.304  73.627  1.00 71.01      7
ATOM   15626  CA  ALA G 862      26.963  87.783  74.894  1.00 69.91      6
ATOM   15627  CB  ALA G 862      28.175  88.635  74.677  1.00147.44      6
ATOM   15628  C   ALA G 862      25.901  88.531  75.654  1.00 68.60      6
ATOM   15629  O   ALA G 862      25.458  89.593  75.231  1.00 68.70      8
ATOM   15630  N   THR G 863      25.490  87.969  76.783  1.00 30.07      7
ATOM   15631  CA  THR G 863      24.452  88.593  77.585  1.00 29.08      6
ATOM   15632  CB  THR G 863      23.209  87.705  77.677  1.00 73.20      6
ATOM   15633  OG1 THR G 863      23.590  86.423  78.198  1.00 76.57      8
ATOM   15634  CG2 THR G 863      22.535  87.562  76.301  1.00 72.02      6
ATOM   15635  C   THR G 863      24.913  88.887  78.995  1.00 26.54      6
ATOM   15636  O   THR G 863      24.191  89.512  79.775  1.00 25.80      8
ATOM   15637  N   VAL G 864      26.120  88.451  79.319  1.00 23.50      7
ATOM   15638  CA  VAL G 864      26.650  88.674  80.654  1.00 22.07      6
ATOM   15639  CB  VAL G 864      26.755  90.173  81.011  1.00 22.87      6
ATOM   15640  CG1 VAL G 864      28.005  90.414  81.839  1.00 23.36      6
ATOM   15641  CG2 VAL G 864      26.761  91.023  79.765  1.00 22.10      6
ATOM   15642  C   VAL G 864      25.699  88.033  81.650  1.00 22.10      6
ATOM   15643  O   VAL G 864      24.829  88.683  82.212  1.00 21.15      8
ATOM   15644  N   THR G 865      25.864  86.737  81.843  1.00 45.08      7
ATOM   15645  CA  THR G 865      25.041  85.986  82.771  1.00 45.06      6
ATOM   15646  CB  THR G 865      24.487  84.729  82.066  1.00128.34      6
ATOM   15647  OG1 THR G 865      23.562  85.136  81.050  1.00131.99      8
ATOM   15648  CG2 THR G 865      23.804  83.790  83.044  1.00129.13      6
ATOM   15649  C   THR G 865      26.023  85.599  83.865  1.00 43.63      6
ATOM   15650  O   THR G 865      27.160  86.088  83.877  1.00 43.54      8
ATOM   15651  N   THR G 866      25.593  84.776  84.813  1.00 25.61      7
ATOM   15652  CA  THR G 866      26.528  84.321  85.814  1.00 24.71      6
ATOM   15653  CB  THR G 866      25.940  84.272  87.204  1.00 31.23      6
ATOM   15654  OG1 THR G 866      25.644  85.600  87.653  1.00 31.75      8
ATOM   15655  CG2 THR G 866      26.945  83.639  88.150  1.00 31.73      6
ATOM   15656  C   THR G 866      26.833  82.909  85.357  1.00 25.15      6
ATOM   15657  O   THR G 866      25.953  82.201  84.889  1.00 24.89      8
ATOM   15658  N   ALA G 867      28.090  82.518  85.447  1.00 41.03      7
ATOM   15659  CA  ALA G 867      28.494  81.193  85.038  1.00 41.48      6
ATOM   15660  CB  ALA G 867      28.903  81.199  83.570  1.00 13.87      6
ATOM   15661  C   ALA G 867      29.668  80.845  85.934  1.00 42.73      6
ATOM   15662  O   ALA G 867      30.497  81.700  86.229  1.00 43.69      8
ATOM   15663  N   ALA G 868      29.719  79.604  86.395  1.00 34.32      7
ATOM   15664  CA  ALA G 868      30.795  79.174  87.265  1.00 36.10      6
ATOM   15665  CB  ALA G 868      30.258  78.199  88.290  1.00 42.76      6
ATOM   15666  C   ALA G 868      31.920  78.534  86.460  1.00 37.63      6
ATOM   15667  O   ALA G 868      31.771  78.286  85.272  1.00 37.79      8
ATOM   15668  N   ALA G 869      33.043  78.280  87.125  1.00 66.65      7
ATOM   15669  CA  ALA G 869      34.228  77.668  86.520  1.00 68.09      6
ATOM   15670  CB  ALA G 869      34.647  78.440  85.274  1.00129.92      6
ATOM   15671  C   ALA G 869      35.352  77.698  87.555  1.00 68.88      6
```

280

```
ATOM   15672  O   ALA G 869      36.538  77.748  87.216  1.00 68.88      8
ATOM   15673  N   GLY G 870      34.951  77.657  88.821  1.00 57.15      7
ATOM   15674  CA  GLY G 870      35.893  77.710  89.915  1.00 58.51      6
ATOM   15675  C   GLY G 870      35.780  79.091  90.528  1.00 59.51      6
ATOM   15676  O   GLY G 870      36.656  79.532  91.273  1.00 61.33      8
ATOM   15677  N   ALA G 871      34.686  79.771  90.196  1.00 56.97      7
ATOM   15678  CA  ALA G 871      34.395  81.123  90.677  1.00 56.70      6
ATOM   15679  CB  ALA G 871      35.563  82.068  90.378  1.00 13.87      6
ATOM   15680  C   ALA G 871      33.165  81.578  89.922  1.00 56.66      6
ATOM   15681  O   ALA G 871      32.806  80.976  88.921  1.00 57.56      8
ATOM   15682  N   ARG G 872      32.511  82.630  90.385  1.00 40.49      7
ATOM   15683  CA  ARG G 872      31.332  83.101  89.674  1.00 39.68      6
ATOM   15684  CB  ARG G 872      30.277  83.637  90.641  1.00 80.04      6
ATOM   15685  CG  ARG G 872      29.585  82.579  91.465  1.00 83.64      6
ATOM   15686  CD  ARG G 872      28.345  83.137  92.121  1.00 85.99      6
ATOM   15687  NE  ARG G 872      27.866  82.219  93.141  1.00 89.26      7
ATOM   15688  CZ  ARG G 872      26.865  82.485  93.968  1.00 91.96      6
ATOM   15689  NH1 ARG G 872      26.232  83.648  93.890  1.00 93.33      7
ATOM   15690  NH2 ARG G 872      26.513  81.598  94.889  1.00 93.53      7
ATOM   15691  C   ARG G 872      31.685  84.194  88.696  1.00 37.68      6
ATOM   15692  O   ARG G 872      32.000  85.298  89.099  1.00 36.99      8
ATOM   15693  N   LEU G 873      31.621  83.902  87.409  1.00 33.92      7
ATOM   15694  CA  LEU G 873      31.941  84.921  86.433  1.00 33.36      6
ATOM   15695  CB  LEU G 873      32.749  84.327  85.278  1.00 19.03      6
ATOM   15696  CG  LEU G 873      34.138  83.757  85.548  1.00 17.72      6
ATOM   15697  CD1 LEU G 873      34.841  83.466  84.206  1.00 16.79      6
ATOM   15698  CD2 LEU G 873      34.926  84.747  86.388  1.00 16.71      6
ATOM   15699  C   LEU G 873      30.680  85.576  85.882  1.00 33.95      6
ATOM   15700  O   LEU G 873      29.637  84.933  85.786  1.00 34.32      8
ATOM   15701  N   ALA G 874      30.786  86.857  85.526  1.00 44.93      7
ATOM   15702  CA  ALA G 874      29.667  87.612  84.962  1.00 44.76      6
ATOM   15703  CB  ALA G 874      29.794  89.074  85.328  1.00 76.23      6
ATOM   15704  C   ALA G 874      29.703  87.441  83.450  1.00 44.78      6
ATOM   15705  O   ALA G 874      28.880  87.977  82.718  1.00 45.55      8
ATOM   15706  N   THR G 875      30.700  86.686  83.018  1.00 14.16      7
ATOM   15707  CA  THR G 875      30.958  86.334  81.632  1.00 14.84      6
ATOM   15708  CB  THR G 875      31.768  85.005  81.635  1.00 56.84      6
ATOM   15709  OG1 THR G 875      33.099  85.243  82.113  1.00 58.85      8
ATOM   15710  CG2 THR G 875      31.826  84.393  80.274  1.00 59.65      6
ATOM   15711  C   THR G 875      29.688  86.168  80.771  1.00 14.64      6
ATOM   15712  O   THR G 875      28.574  86.141  81.290  1.00 13.87      8
ATOM   15713  N   ASN G 876      29.865  86.073  79.451  1.00 36.68      7
ATOM   15714  CA  ASN G 876      28.755  85.851  78.517  1.00 38.78      6
ATOM   15715  CB  ASN G 876      28.829  86.815  77.347  1.00184.15      6
ATOM   15716  CG  ASN G 876      29.391  88.151  77.741  1.00190.14      6
ATOM   15717  OD1 ASN G 876      28.968  88.748  78.730  1.00194.99      8
ATOM   15718  ND2 ASN G 876      30.354  88.635  76.967  1.00192.51      7
ATOM   15719  C   ASN G 876      28.970  84.427  78.007  1.00 38.08      6
ATOM   15720  O   ASN G 876      30.101  84.030  77.758  1.00 36.14      8
ATOM   15721  N   PRO G 877      27.892  83.646  77.827  1.00 44.83      7
ATOM   15722  CD  PRO G 877      26.502  84.063  77.581  1.00 68.44      6
ATOM   15723  CA  PRO G 877      28.105  82.277  77.348  1.00 44.06      6
ATOM   15724  CB  PRO G 877      26.727  81.866  76.844  1.00 67.53      6
ATOM   15725  CG  PRO G 877      26.107  83.154  76.453  1.00 67.57      6
ATOM   15726  C   PRO G 877      29.159  82.251  76.269  1.00 43.95      6
ATOM   15727  O   PRO G 877      29.961  81.329  76.196  1.00 44.20      8
```

```
ATOM   15728  N    GLY G 878       29.165  83.295  75.449  1.00  55.73       7
ATOM   15729  CA   GLY G 878       30.141  83.391  74.380  1.00  55.48       6
ATOM   15730  C    GLY G 878       31.567  83.342  74.890  1.00  54.89       6
ATOM   15731  O    GLY G 878       32.373  82.517  74.454  1.00  55.24       8
ATOM   15732  N    ARG G 879       31.880  84.242  75.814  1.00  31.81       7
ATOM   15733  CA   ARG G 879       33.207  84.303  76.401  1.00  30.20       6
ATOM   15734  CB   ARG G 879       33.220  85.275  77.565  1.00  75.79       6
ATOM   15735  CG   ARG G 879       32.059  86.258  77.592  1.00  77.49       6
ATOM   15736  CD   ARG G 879       32.527  87.484  78.320  1.00  79.29       6
ATOM   15737  NE   ARG G 879       33.866  87.775  77.830  1.00  82.26       7
ATOM   15738  CZ   ARG G 879       34.149  87.970  76.548  1.00  83.44       6
ATOM   15739  NH1  ARG G 879       33.180  87.931  75.648  1.00  84.99       7
ATOM   15740  NH2  ARG G 879       35.404  88.132  76.155  1.00  83.51       7
ATOM   15741  C    ARG G 879       33.507  82.914  76.919  1.00  29.15       6
ATOM   15742  O    ARG G 879       34.648  82.466  76.902  1.00  29.73       8
ATOM   15743  N    ILE G 880       32.459  82.247  77.392  1.00  38.04       7
ATOM   15744  CA   ILE G 880       32.581  80.903  77.901  1.00  36.82       6
ATOM   15745  CB   ILE G 880       31.246  80.398  78.486  1.00  59.31       6
ATOM   15746  CG2  ILE G 880       31.308  78.892  78.738  1.00  59.60       6
ATOM   15747  CG1  ILE G 880       30.927  81.163  79.773  1.00  60.99       6
ATOM   15748  CD1  ILE G 880       32.017  81.068  80.842  1.00  60.31       6
ATOM   15749  C    ILE G 880       32.970  80.052  76.716  1.00  35.96       6
ATOM   15750  O    ILE G 880       33.970  79.345  76.767  1.00  37.18       8
ATOM   15751  N    LEU G 881       32.191  80.135  75.639  1.00  29.30       7
ATOM   15752  CA   LEU G 881       32.471  79.362  74.432  1.00  26.04       6
ATOM   15753  CB   LEU G 881       31.557  79.823  73.297  1.00  13.87       6
ATOM   15754  CG   LEU G 881       31.811  79.291  71.890  1.00  13.87       6
ATOM   15755  CD1  LEU G 881       31.831  77.794  71.902  1.00  13.87       6
ATOM   15756  CD2  LEU G 881       30.742  79.812  70.957  1.00  13.87       6
ATOM   15757  C    LEU G 881       33.943  79.504  74.034  1.00  25.98       6
ATOM   15758  O    LEU G 881       34.679  78.516  74.035  1.00  25.33       8
ATOM   15759  N    PHE G 882       34.372  80.726  73.709  1.00  36.39       7
ATOM   15760  CA   PHE G 882       35.766  80.962  73.329  1.00  37.30       6
ATOM   15761  CB   PHE G 882       36.038  82.463  73.082  1.00  36.31       6
ATOM   15762  CG   PHE G 882       37.453  82.766  72.588  1.00  35.49       6
ATOM   15763  CD1  PHE G 882       37.754  82.769  71.230  1.00  35.22       6
ATOM   15764  CD2  PHE G 882       38.488  83.004  73.484  1.00  35.56       6
ATOM   15765  CE1  PHE G 882       39.063  83.000  70.782  1.00  35.92       6
ATOM   15766  CE2  PHE G 882       39.787  83.233  73.039  1.00  35.40       6
ATOM   15767  CZ   PHE G 882       40.071  83.229  71.689  1.00  34.89       6
ATOM   15768  C    PHE G 882       36.647  80.447  74.457  1.00  37.63       6
ATOM   15769  O    PHE G 882       37.698  79.876  74.221  1.00  38.05       8
ATOM   15770  N    ALA G 883       36.201  80.638  75.688  1.00  47.63       7
ATOM   15771  CA   ALA G 883       36.962  80.178  76.839  1.00  48.79       6
ATOM   15772  CB   ALA G 883       36.179  80.416  78.118  1.00  89.30       6
ATOM   15773  C    ALA G 883       37.300  78.703  76.716  1.00  50.03       6
ATOM   15774  O    ALA G 883       38.377  78.276  77.131  1.00  51.77       8
ATOM   15775  N    ARG G 884       36.368  77.932  76.155  1.00  28.79       7
ATOM   15776  CA   ARG G 884       36.531  76.486  75.953  1.00  27.87       6
ATOM   15777  CB   ARG G 884       35.178  75.790  75.995  1.00  47.89       6
ATOM   15778  CG   ARG G 884       35.189  74.394  75.422  1.00  51.11       6
ATOM   15779  CD   ARG G 884       33.772  73.872  75.289  1.00  53.02       6
ATOM   15780  NE   ARG G 884       33.137  73.699  76.589  1.00  55.00       7
ATOM   15781  CZ   ARG G 884       31.824  73.647  76.773  1.00  55.95       6
ATOM   15782  NH1  ARG G 884       31.006  73.757  75.735  1.00  56.59       7
ATOM   15783  NH2  ARG G 884       31.332  73.490  77.995  1.00  56.70       7
```

```
ATOM   15784  C    ARG G 884      37.192  76.182  74.614  1.00 26.71      6
ATOM   15785  O    ARG G 884      37.993  75.254  74.511  1.00 25.97      8
ATOM   15786  N    ILE G 885      36.837  76.962  73.593  1.00 31.04      7
ATOM   15787  CA   ILE G 885      37.407  76.790  72.262  1.00 30.99      6
ATOM   15788  CB   ILE G 885      37.049  77.963  71.354  1.00 43.96      6
ATOM   15789  CG2  ILE G 885      37.462  77.648  69.928  1.00 45.49      6
ATOM   15790  CG1  ILE G 885      35.547  78.228  71.434  1.00 43.65      6
ATOM   15791  CD1  ILE G 885      35.064  79.422  70.617  1.00 43.74      6
ATOM   15792  C    ILE G 885      38.922  76.719  72.388  1.00 29.83      6
ATOM   15793  O    ILE G 885      39.562  75.824  71.847  1.00 30.77      8
ATOM   15794  N    VAL G 886      39.492  77.669  73.115  1.00 27.56      7
ATOM   15795  CA   VAL G 886      40.930  77.699  73.323  1.00 26.35      6
ATOM   15796  CB   VAL G 886      41.389  79.069  73.895  1.00 13.87      6
ATOM   15797  CG1  VAL G 886      41.888  78.895  75.330  1.00 13.87      6
ATOM   15798  CG2  VAL G 886      42.461  79.685  73.000  1.00 13.87      6
ATOM   15799  C    VAL G 886      41.275  76.601  74.327  1.00 28.11      6
ATOM   15800  O    VAL G 886      42.427  76.170  74.439  1.00 28.19      8
ATOM   15801  N    GLY G 887      40.265  76.152  75.057  1.00 24.36      7
ATOM   15802  CA   GLY G 887      40.494  75.132  76.056  1.00 27.35      6
ATOM   15803  C    GLY G 887      40.717  73.766  75.459  1.00 29.17      6
ATOM   15804  O    GLY G 887      41.823  73.231  75.496  1.00 28.82      8
ATOM   15805  N    GLU G 888      39.655  73.202  74.902  1.00 65.82      7
ATOM   15806  CA   GLU G 888      39.720  71.881  74.313  1.00 68.64      6
ATOM   15807  CB   GLU G 888      38.323  71.428  73.925  1.00 39.77      6
ATOM   15808  CG   GLU G 888      37.424  71.334  75.136  1.00 39.86      6
ATOM   15809  CD   GLU G 888      35.985  71.159  74.769  1.00 39.84      6
ATOM   15810  OE1  GLU G 888      35.529  71.899  73.875  1.00 39.80      8
ATOM   15811  OE2  GLU G 888      35.312  70.298  75.377  1.00 40.62      8
ATOM   15812  C    GLU G 888      40.647  71.844  73.127  1.00 70.30      6
ATOM   15813  O    GLU G 888      40.818  70.806  72.499  1.00 71.83      8
ATOM   15814  N    ALA G 889      41.242  72.989  72.823  1.00 43.05      7
ATOM   15815  CA   ALA G 889      42.193  73.075  71.728  1.00 44.24      6
ATOM   15816  CB   ALA G 889      42.284  74.501  71.220  1.00 76.02      6
ATOM   15817  C    ALA G 889      43.530  72.639  72.316  1.00 44.97      6
ATOM   15818  O    ALA G 889      44.224  71.791  71.755  1.00 43.95      8
ATOM   15819  N    VAL G 890      43.874  73.227  73.458  1.00 54.40      7
ATOM   15820  CA   VAL G 890      45.114  72.917  74.163  1.00 57.41      6
ATOM   15821  CB   VAL G 890      45.787  74.225  74.693  1.00 49.51      6
ATOM   15822  CG1  VAL G 890      47.081  73.911  75.357  1.00 48.83      6
ATOM   15823  CG2  VAL G 890      46.047  75.188  73.560  1.00 49.11      6
ATOM   15824  C    VAL G 890      44.755  71.989  75.337  1.00 59.76      6
ATOM   15825  O    VAL G 890      43.702  71.352  75.330  1.00 61.17      8
ATOM   15826  N    GLY G 891      45.624  71.904  76.336  1.00 79.51      7
ATOM   15827  CA   GLY G 891      45.345  71.063  77.485  1.00 81.97      6
ATOM   15828  C    GLY G 891      44.323  71.710  78.406  1.00 83.30      6
ATOM   15829  O    GLY G 891      44.633  72.050  79.554  1.00 83.11      8
ATOM   15830  N    ASP G 892      43.111  71.886  77.879  1.00121.39      7
ATOM   15831  CA   ASP G 892      41.962  72.476  78.580  1.00124.21      6
ATOM   15832  CB   ASP G 892      41.308  71.428  79.498  1.00208.87      6
ATOM   15833  CG   ASP G 892      42.236  70.942  80.601  1.00208.87      6
ATOM   15834  OD1  ASP G 892      42.697  71.775  81.413  1.00208.87      8
ATOM   15835  OD2  ASP G 892      42.498  69.721  80.658  1.00208.87      8
ATOM   15836  C    ASP G 892      42.179  73.769  79.374  1.00124.31      6
ATOM   15837  O    ASP G 892      43.309  74.218  79.566  1.00124.47      8
ATOM   15838  N    GLU G 893      41.070  74.358  79.826  1.00 35.77      7
ATOM   15839  CA   GLU G 893      41.095  75.584  80.606  1.00 35.68      6
```

```
ATOM   15840  CB  GLU G 893      39.683  75.905  81.123  1.00115.47      6
ATOM   15841  CG  GLU G 893      38.669  76.228  80.012  1.00117.40      6
ATOM   15842  CD  GLU G 893      37.233  76.432  80.516  1.00118.53      6
ATOM   15843  OE1 GLU G 893      36.967  77.406  81.261  1.00117.96      8
ATOM   15844  OE2 GLU G 893      36.367  75.606  80.154  1.00119.18      8
ATOM   15845  C   GLU G 893      42.086  75.460  81.768  1.00 35.36      6
ATOM   15846  O   GLU G 893      42.601  74.372  82.051  1.00 33.68      8
ATOM   15847  N   LYS G 894      42.330  76.586  82.438  1.00 94.32      7
ATOM   15848  CA  LYS G 894      43.287  76.689  83.542  1.00 94.70      6
ATOM   15849  CB  LYS G 894      43.321  75.413  84.397  1.00 94.12      6
ATOM   15850  CG  LYS G 894      42.439  75.480  85.641  1.00 96.11      6
ATOM   15851  CD  LYS G 894      42.664  74.283  86.567  1.00 96.16      6
ATOM   15852  CE  LYS G 894      41.797  74.372  87.826  1.00 95.52      6
ATOM   15853  NZ  LYS G 894      41.985  73.206  88.740  1.00 94.50      7
ATOM   15854  C   LYS G 894      44.650  76.928  82.907  1.00 94.03      6
ATOM   15855  O   LYS G 894      45.236  78.003  83.029  1.00 94.64      8
ATOM   15856  N   VAL G 895      45.147  75.915  82.215  1.00 49.20      7
ATOM   15857  CA  VAL G 895      46.425  76.020  81.528  1.00 47.60      6
ATOM   15858  CB  VAL G 895      46.765  74.711  80.762  1.00119.60      6
ATOM   15859  CG1 VAL G 895      48.197  74.760  80.268  1.00120.33      6
ATOM   15860  CG2 VAL G 895      46.531  73.493  81.649  1.00119.78      6
ATOM   15861  C   VAL G 895      46.266  77.140  80.505  1.00 45.77      6
ATOM   15862  O   VAL G 895      47.222  77.847  80.194  1.00 44.83      8
ATOM   15863  N   ALA G 896      45.038  77.277  79.999  1.00 60.71      7
ATOM   15864  CA  ALA G 896      44.676  78.272  78.991  1.00 60.52      6
ATOM   15865  CB  ALA G 896      43.807  77.638  77.925  1.00 72.91      6
ATOM   15866  C   ALA G 896      43.953  79.467  79.576  1.00 60.58      6
ATOM   15867  O   ALA G 896      43.515  80.353  78.848  1.00 60.79      8
ATOM   15868  N   GLN G 897      43.799  79.481  80.891  1.00100.94      7
ATOM   15869  CA  GLN G 897      43.144  80.606  81.531  1.00100.51      6
ATOM   15870  CB  GLN G 897      42.477  80.177  82.847  1.00 86.09      6
ATOM   15871  CG  GLN G 897      41.343  81.096  83.327  1.00 86.84      6
ATOM   15872  CD  GLN G 897      40.153  81.174  82.357  1.00 87.05      6
ATOM   15873  OE1 GLN G 897      39.147  81.826  82.641  1.00 86.67      8
ATOM   15874  NE2 GLN G 897      40.271  80.511  81.212  1.00 87.07      7
ATOM   15875  C   GLN G 897      44.260  81.607  81.784  1.00100.40      6
ATOM   15876  O   GLN G 897      44.012  82.747  82.159  1.00102.19      8
ATOM   15877  N   GLU G 898      45.497  81.164  81.566  1.00 75.51      7
ATOM   15878  CA  GLU G 898      46.671  82.012  81.745  1.00 74.64      6
ATOM   15879  CB  GLU G 898      47.918  81.165  81.971  1.00 66.30      6
ATOM   15880  CG  GLU G 898      48.050  80.667  83.385  1.00 67.20      6
ATOM   15881  CD  GLU G 898      49.062  79.553  83.523  1.00 67.60      6
ATOM   15882  OE1 GLU G 898      50.234  79.747  83.125  1.00 67.53      8
ATOM   15883  OE2 GLU G 898      48.675  78.480  84.039  1.00 67.31      8
ATOM   15884  C   GLU G 898      46.867  82.865  80.510  1.00 73.74      6
ATOM   15885  O   GLU G 898      47.306  84.011  80.602  1.00 74.78      8
ATOM   15886  N   LEU G 899      46.545  82.294  79.352  1.00 45.15      7
ATOM   15887  CA  LEU G 899      46.672  83.013  78.097  1.00 42.54      6
ATOM   15888  CB  LEU G 899      47.508  82.255  77.075  1.00 26.37      6
ATOM   15889  CG  LEU G 899      48.356  81.084  77.514  1.00 26.06      6
ATOM   15890  CD1 LEU G 899      49.116  81.462  78.783  1.00 25.38      6
ATOM   15891  CD2 LEU G 899      47.463  79.883  77.717  1.00 26.33      6
ATOM   15892  C   LEU G 899      45.325  83.248  77.478  1.00 41.69      6
ATOM   15893  O   LEU G 899      44.893  82.475  76.635  1.00 42.31      8
ATOM   15894  N   ILE G 900      44.668  84.316  77.897  1.00 22.53      7
ATOM   15895  CA  ILE G 900      43.375  84.703  77.358  1.00 22.79      6
```

284

```
ATOM   15896  CB   ILE G 900      42.281  83.627  77.609  1.00  36.61      6
ATOM   15897  CG2  ILE G 900      40.897  84.202  77.398  1.00  35.79      6
ATOM   15898  CG1  ILE G 900      42.381  82.514  76.582  1.00  37.49      6
ATOM   15899  CD1  ILE G 900      41.455  81.390  76.897  1.00  40.24      6
ATOM   15900  C    ILE G 900      42.968  86.012  78.022  1.00  23.21      6
ATOM   15901  O    ILE G 900      43.421  86.335  79.126  1.00  22.80      8
ATOM   15902  N    GLN G 901      42.134  86.774  77.325  1.00  19.87      7
ATOM   15903  CA   GLN G 901      41.634  88.037  77.823  1.00  21.52      6
ATOM   15904  CB   GLN G 901      41.628  89.039  76.674  1.00  68.31      6
ATOM   15905  CG   GLN G 901      43.028  89.319  76.126  1.00  69.31      6
ATOM   15906  CD   GLN G 901      43.756  90.391  76.913  1.00  69.07      6
ATOM   15907  OE1  GLN G 901      43.625  91.581  76.623  1.00  68.55      8
ATOM   15908  NE2  GLN G 901      44.514  89.979  77.923  1.00  68.90      7
ATOM   15909  C    GLN G 901      40.229  87.746  78.346  1.00  22.56      6
ATOM   15910  O    GLN G 901      39.302  88.552  78.234  1.00  21.99      8
ATOM   15911  N    MET G 902      40.115  86.556  78.925  1.00  56.90      7
ATOM   15912  CA   MET G 902      38.889  86.015  79.490  1.00  57.86      6
ATOM   15913  CB   MET G 902      39.162  85.524  80.911  1.00  74.23      6
ATOM   15914  CG   MET G 902      38.006  84.777  81.551  1.00  76.01      6
ATOM   15915  SD   MET G 902      37.447  83.344  80.628  1.00  77.57     16
ATOM   15916  CE   MET G 902      35.979  84.035  79.850  1.00  78.20      6
ATOM   15917  C    MET G 902      37.689  86.951  79.477  1.00  57.85      6
ATOM   15918  O    MET G 902      36.691  86.652  78.824  1.00  57.85      8
ATOM   15919  N    ASP G 903      37.789  88.074  80.190  1.00  35.08      7
ATOM   15920  CA   ASP G 903      36.697  89.032  80.257  1.00  35.13      6
ATOM   15921  CB   ASP G 903      36.767  89.869  81.529  1.00  71.82      6
ATOM   15922  CG   ASP G 903      38.069  90.597  81.668  1.00  75.46      6
ATOM   15923  OD1  ASP G 903      38.706  90.871  80.630  1.00  77.78      8
ATOM   15924  OD2  ASP G 903      38.451  90.911  82.818  1.00  77.13      8
ATOM   15925  C    ASP G 903      36.678  89.930  79.039  1.00  34.20      6
ATOM   15926  O    ASP G 903      37.645  90.639  78.733  1.00  32.37      8
ATOM   15927  N    VAL G 904      35.536  89.858  78.360  1.00162.58      7
ATOM   15928  CA   VAL G 904      35.201  90.558  77.123  1.00162.19      6
ATOM   15929  CB   VAL G 904      33.790  91.172  77.211  1.00  40.65      6
ATOM   15930  CG1  VAL G 904      33.117  91.147  75.858  1.00  39.86      6
ATOM   15931  CG2  VAL G 904      32.968  90.410  78.195  1.00  39.71      6
ATOM   15932  C    VAL G 904      36.141  91.589  76.537  1.00163.22      6
ATOM   15933  O    VAL G 904      35.938  92.793  76.680  1.00164.16      8
ATOM   15934  N    PRO G 905      37.197  91.119  75.863  1.00  60.14      7
ATOM   15935  CD   PRO G 905      37.735  89.749  75.957  1.00110.94      6
ATOM   15936  CA   PRO G 905      38.165  92.005  75.235  1.00  59.02      6
ATOM   15937  CB   PRO G 905      39.466  91.259  75.430  1.00109.95      6
ATOM   15938  CG   PRO G 905      39.035  89.849  75.192  1.00111.71      6
ATOM   15939  C    PRO G 905      37.719  92.056  73.777  1.00  57.10      6
ATOM   15940  O    PRO G 905      37.794  93.095  73.135  1.00  57.59      8
ATOM   15941  N    GLN G 906      37.231  90.916  73.285  1.00  49.21      7
ATOM   15942  CA   GLN G 906      36.724  90.757  71.917  1.00  49.85      6
ATOM   15943  CB   GLN G 906      36.195  92.095  71.405  1.00  53.87      6
ATOM   15944  CG   GLN G 906      34.901  92.512  72.055  1.00  55.86      6
ATOM   15945  CD   GLN G 906      34.943  92.399  73.564  1.00  57.00      6
ATOM   15946  OE1  GLN G 906      35.161  91.321  74.113  1.00  57.22      8
ATOM   15947  NE2  GLN G 906      34.732  93.514  74.244  1.00  57.60      7
ATOM   15948  C    GLN G 906      37.669  90.131  70.879  1.00  49.11      6
ATOM   15949  O    GLN G 906      37.238  89.687  69.803  1.00  48.41      8
ATOM   15950  N    GLU G 907      38.954  90.091  71.199  1.00  79.81      7
ATOM   15951  CA   GLU G 907      39.919  89.507  70.288  1.00  78.33      6
```

285

```
ATOM   15952  CB   GLU G 907      39.525  88.057  70.013  1.00  46.27      6
ATOM   15953  CG   GLU G 907      39.867  87.081  71.139  1.00  46.49      6
ATOM   15954  CD   GLU G 907      39.044  87.268  72.387  1.00  45.93      6
ATOM   15955  OE1  GLU G 907      37.801  87.271  72.283  1.00  44.60      8
ATOM   15956  OE2  GLU G 907      39.649  87.394  73.474  1.00  45.94      8
ATOM   15957  C    GLU G 907      40.017  90.296  68.976  1.00  77.28      6
ATOM   15958  O    GLU G 907      39.047  90.924  68.550  1.00  78.63      8
ATOM   15959  N    LYS G 908      41.194  90.253  68.353  1.00  24.13      7
ATOM   15960  CA   LYS G 908      41.473  90.950  67.107  1.00  22.51      6
ATOM   15961  CB   LYS G 908      40.815  92.330  67.108  1.00159.89      6
ATOM   15962  CG   LYS G 908      41.446  93.325  66.150  1.00164.86      6
ATOM   15963  CD   LYS G 908      42.212  94.429  66.892  1.00167.39      6
ATOM   15964  CE   LYS G 908      42.750  95.498  65.930  1.00168.09      6
ATOM   15965  NZ   LYS G 908      43.541  96.566  66.618  1.00167.48      7
ATOM   15966  C    LYS G 908      42.986  91.111  66.997  1.00  20.27      6
ATOM   15967  O    LYS G 908      43.610  90.720  66.009  1.00  18.93      8
ATOM   15968  N    ASN G 909      43.583  91.689  68.031  1.00  57.22      7
ATOM   15969  CA   ASN G 909      45.022  91.923  68.046  1.00  55.65      6
ATOM   15970  CB   ASN G 909      45.291  93.389  68.387  1.00  48.68      6
ATOM   15971  CG   ASN G 909      46.433  93.979  67.589  1.00  47.29      6
ATOM   15972  OD1  ASN G 909      47.543  93.441  67.584  1.00  46.58      8
ATOM   15973  ND2  ASN G 909      46.168  95.100  66.911  1.00  46.82      7
ATOM   15974  C    ASN G 909      45.638  91.037  69.109  1.00  54.42      6
ATOM   15975  O    ASN G 909      46.855  90.933  69.219  1.00  54.18      8
ATOM   15976  N    SER G 910      44.769  90.420  69.904  1.00  63.47      7
ATOM   15977  CA   SER G 910      45.175  89.543  70.990  1.00  60.11      6
ATOM   15978  CB   SER G 910      44.116  89.497  72.077  1.00  13.87      6
ATOM   15979  OG   SER G 910      42.975  88.782  71.635  1.00  13.87      8
ATOM   15980  C    SER G 910      45.324  88.149  70.461  1.00  58.93      6
ATOM   15981  O    SER G 910      46.290  87.455  70.782  1.00  60.96      8
ATOM   15982  N    LEU G 911      44.336  87.728  69.674  1.00  20.64      7
ATOM   15983  CA   LEU G 911      44.360  86.393  69.095  1.00  16.36      6
ATOM   15984  CB   LEU G 911      43.449  86.335  67.870  1.00  13.87      6
ATOM   15985  CG   LEU G 911      42.081  85.679  68.034  1.00  13.87      6
ATOM   15986  CD1  LEU G 911      41.751  85.421  69.480  1.00  13.87      6
ATOM   15987  CD2  LEU G 911      41.066  86.563  67.389  1.00  13.87      6
ATOM   15988  C    LEU G 911      45.806  86.174  68.725  1.00  15.35      6
ATOM   15989  O    LEU G 911      46.438  85.228  69.183  1.00  13.87      8
ATOM   15990  N    LYS G 912      46.331  87.095  67.934  1.00  15.44      7
ATOM   15991  CA   LYS G 912      47.719  87.037  67.539  1.00  18.81      6
ATOM   15992  CB   LYS G 912      48.117  88.362  66.885  1.00  42.46      6
ATOM   15993  CG   LYS G 912      49.592  88.491  66.508  1.00  43.58      6
ATOM   15994  CD   LYS G 912      49.831  89.784  65.744  1.00  44.30      6
ATOM   15995  CE   LYS G 912      51.225  89.858  65.159  1.00  45.82      6
ATOM   15996  NZ   LYS G 912      51.267  90.850  64.043  1.00  43.71      7
ATOM   15997  C    LYS G 912      48.584  86.772  68.780  1.00  19.99      6
ATOM   15998  O    LYS G 912      49.181  85.706  68.915  1.00  20.14      8
ATOM   15999  N    ASP G 913      48.637  87.723  69.702  1.00  47.75      7
ATOM   16000  CA   ASP G 913      49.457  87.518  70.876  1.00  48.99      6
ATOM   16001  CB   ASP G 913      49.361  88.710  71.826  1.00  82.36      6
ATOM   16002  CG   ASP G 913      50.480  88.712  72.854  1.00  88.19      6
ATOM   16003  OD1  ASP G 913      50.269  88.161  73.955  1.00  90.42      8
ATOM   16004  OD2  ASP G 913      51.578  89.243  72.555  1.00  89.92      8
ATOM   16005  C    ASP G 913      49.130  86.217  71.599  1.00  47.74      6
ATOM   16006  O    ASP G 913      50.046  85.531  72.053  1.00  47.79      8
ATOM   16007  N    LEU G 914      47.849  85.858  71.707  1.00  49.81      7
```

286

```
ATOM   16008  CA  LEU G 914      47.502  84.598  72.367  1.00 47.58      6
ATOM   16009  CB  LEU G 914      46.026  84.242  72.190  1.00 13.87      6
ATOM   16010  CG  LEU G 914      45.480  83.139  73.125  1.00 13.87      6
ATOM   16011  CD1 LEU G 914      44.332  82.460  72.432  1.00 13.87      6
ATOM   16012  CD2 LEU G 914      46.523  82.098  73.501  1.00 13.87      6
ATOM   16013  C   LEU G 914      48.336  83.536  71.660  1.00 47.64      6
ATOM   16014  O   LEU G 914      49.135  82.835  72.293  1.00 47.19      8
ATOM   16015  N   VAL G 915      48.132  83.435  70.344  1.00 29.23      7
ATOM   16016  CA  VAL G 915      48.850  82.496  69.507  1.00 27.15      6
ATOM   16017  CB  VAL G 915      48.651  82.793  68.055  1.00 13.87      6
ATOM   16018  CG1 VAL G 915      49.385  81.791  67.222  1.00 13.87      6
ATOM   16019  CG2 VAL G 915      47.213  82.767  67.748  1.00 13.87      6
ATOM   16020  C   VAL G 915      50.326  82.603  69.783  1.00 29.16      6
ATOM   16021  O   VAL G 915      51.032  81.602  69.737  1.00 30.18      8
ATOM   16022  N   TYR G 916      50.811  83.811  70.055  1.00 26.69      7
ATOM   16023  CA  TYR G 916      52.223  83.950  70.347  1.00 28.19      6
ATOM   16024  CB  TYR G 916      52.716  85.388  70.236  1.00 19.64      6
ATOM   16025  CG  TYR G 916      54.173  85.517  70.687  1.00 17.65      6
ATOM   16026  CD1 TYR G 916      55.177  85.886  69.800  1.00 15.59      6
ATOM   16027  CE1 TYR G 916      56.507  85.923  70.211  1.00 14.46      6
ATOM   16028  CD2 TYR G 916      54.555  85.198  71.996  1.00 16.37      6
ATOM   16029  CE2 TYR G 916      55.869  85.232  72.404  1.00 14.46      6
ATOM   16030  CZ  TYR G 916      56.832  85.594  71.515  1.00 14.46      6
ATOM   16031  OH  TYR G 916      58.124  85.650  71.952  1.00 15.03      8
ATOM   16032  C   TYR G 916      52.543  83.466  71.742  1.00 30.99      6
ATOM   16033  O   TYR G 916      53.214  82.451  71.901  1.00 31.41      8
ATOM   16034  N   GLN G 917      52.089  84.205  72.756  1.00 59.90      7
ATOM   16035  CA  GLN G 917      52.397  83.849  74.138  1.00 63.11      6
ATOM   16036  CB  GLN G 917      51.934  84.948  75.110  1.00 81.73      6
ATOM   16037  CG  GLN G 917      53.070  85.932  75.512  1.00 83.43      6
ATOM   16038  CD  GLN G 917      53.127  87.239  74.685  1.00 83.94      6
ATOM   16039  OE1 GLN G 917      52.944  87.238  73.463  1.00 82.83      8
ATOM   16040  NE2 GLN G 917      53.407  88.355  75.364  1.00 82.96      7
ATOM   16041  C   GLN G 917      51.874  82.491  74.555  1.00 64.25      6
ATOM   16042  O   GLN G 917      51.684  82.217  75.735  1.00 65.21      8
ATOM   16043  N   ALA G 918      51.667  81.647  73.551  1.00 59.02      7
ATOM   16044  CA  ALA G 918      51.209  80.274  73.706  1.00 60.12      6
ATOM   16045  CB  ALA G 918      49.903  80.063  72.959  1.00 68.85      6
ATOM   16046  C   ALA G 918      52.315  79.458  73.061  1.00 60.57      6
ATOM   16047  O   ALA G 918      52.746  78.440  73.596  1.00 61.30      8
ATOM   16048  N   PHE G 919      52.767  79.939  71.903  1.00 49.26      7
ATOM   16049  CA  PHE G 919      53.846  79.321  71.135  1.00 47.60      6
ATOM   16050  CB  PHE G 919      54.330  80.267  70.027  1.00 27.52      6
ATOM   16051  CG  PHE G 919      55.359  79.657  69.101  1.00 22.68      6
ATOM   16052  CD1 PHE G 919      54.978  79.089  67.893  1.00 21.13      6
ATOM   16053  CD2 PHE G 919      56.705  79.641  69.446  1.00 19.18      6
ATOM   16054  CE1 PHE G 919      55.916  78.523  67.060  1.00 19.37      6
ATOM   16055  CE2 PHE G 919      57.646  79.076  68.612  1.00 16.91      6
ATOM   16056  CZ  PHE G 919      57.251  78.518  67.422  1.00 18.48      6
ATOM   16057  C   PHE G 919      54.996  79.058  72.079  1.00 47.88      6
ATOM   16058  O   PHE G 919      55.787  78.149  71.863  1.00 48.05      8
ATOM   16059  N   LEU G 920      55.085  79.874  73.121  1.00 28.94      7
ATOM   16060  CA  LEU G 920      56.131  79.731  74.112  1.00 30.43      6
ATOM   16061  CB  LEU G 920      56.441  81.075  74.761  1.00 38.31      6
ATOM   16062  CG  LEU G 920      56.834  82.276  73.897  1.00 38.74      6
ATOM   16063  CD1 LEU G 920      58.285  82.609  74.179  1.00 37.41      6
```

```
ATOM   16064  CD2 LEU G 920      56.610  82.005  72.417  1.00 38.21      6
ATOM   16065  C   LEU G 920      55.689  78.753  75.197  1.00 32.43      6
ATOM   16066  O   LEU G 920      56.437  77.828  75.544  1.00 33.77      8
ATOM   16067  N   ARG G 921      54.473  78.939  75.720  1.00 36.83      7
ATOM   16068  CA  ARG G 921      53.960  78.084  76.798  1.00 37.20      6
ATOM   16069  CB  ARG G 921      52.768  78.752  77.490  1.00 95.12      6
ATOM   16070  CG  ARG G 921      53.079  80.115  78.083  1.00 99.99      6
ATOM   16071  CD  ARG G 921      52.298  80.351  79.366  1.00103.84      6
ATOM   16072  NE  ARG G 921      52.402  81.737  79.817  1.00109.71      7
ATOM   16073  CZ  ARG G 921      51.989  82.173  81.003  1.00112.84      6
ATOM   16074  NH1 ARG G 921      51.444  81.327  81.867  1.00114.38      7
ATOM   16075  NH2 ARG G 921      52.118  83.456  81.326  1.00113.91      7
ATOM   16076  C   ARG G 921      53.565  76.681  76.368  1.00 35.46      6
ATOM   16077  O   ARG G 921      53.420  75.787  77.193  1.00 35.44      8
ATOM   16078  N   LEU G 922      53.397  76.494  75.073  1.00 64.30      7
ATOM   16079  CA  LEU G 922      53.026  75.200  74.541  1.00 63.50      6
ATOM   16080  CB  LEU G 922      51.507  75.146  74.366  1.00 18.17      6
ATOM   16081  CG  LEU G 922      50.712  75.602  75.585  1.00 16.20      6
ATOM   16082  CD1 LEU G 922      49.233  75.769  75.264  1.00 14.05      6
ATOM   16083  CD2 LEU G 922      50.930  74.612  76.669  1.00 14.42      6
ATOM   16084  C   LEU G 922      53.744  75.045  73.196  1.00 63.72      6
ATOM   16085  O   LEU G 922      53.769  75.982  72.390  1.00 64.88      8
ATOM   16086  N   GLY G 923      54.340  73.879  72.951  1.00 33.24      7
ATOM   16087  CA  GLY G 923      55.049  73.674  71.694  1.00 32.46      6
ATOM   16088  C   GLY G 923      54.243  73.916  70.420  1.00 31.64      6
ATOM   16089  O   GLY G 923      53.027  74.105  70.455  1.00 32.09      8
ATOM   16090  N   MET G 924      54.934  73.911  69.285  1.00 24.29      7
ATOM   16091  CA  MET G 924      54.301  74.118  67.988  1.00 22.47      6
ATOM   16092  CB  MET G 924      55.242  73.727  66.865  1.00 31.67      6
ATOM   16093  CG  MET G 924      56.426  74.602  66.683  1.00 30.54      6
ATOM   16094  SD  MET G 924      57.356  73.819  65.405  1.00 29.77     16
ATOM   16095  CE  MET G 924      58.727  73.169  66.390  1.00 30.31      6
ATOM   16096  C   MET G 924      53.073  73.255  67.844  1.00 23.04      6
ATOM   16097  O   MET G 924      51.972  73.741  67.601  1.00 23.98      8
ATOM   16098  N   GLU G 925      53.293  71.956  67.955  1.00 36.57      7
ATOM   16099  CA  GLU G 925      52.222  71.004  67.836  1.00 37.61      6
ATOM   16100  CB  GLU G 925      52.603  69.682  68.521  1.00102.24      6
ATOM   16101  CG  GLU G 925      53.701  69.789  69.583  1.00106.64      6
ATOM   16102  CD  GLU G 925      55.066  69.323  69.084  1.00109.07      6
ATOM   16103  OE1 GLU G 925      55.571  69.890  68.093  1.00110.33      8
ATOM   16104  OE2 GLU G 925      55.640  68.389  69.687  1.00111.51      8
ATOM   16105  C   GLU G 925      50.968  71.592  68.457  1.00 37.24      6
ATOM   16106  O   GLU G 925      49.992  71.816  67.761  1.00 38.11      8
ATOM   16107  N   LYS G 926      50.989  71.885  69.750  1.00 21.59      7
ATOM   16108  CA  LYS G 926      49.794  72.419  70.363  1.00 21.44      6
ATOM   16109  CB  LYS G 926      49.968  72.489  71.870  1.00 36.62      6
ATOM   16110  CG  LYS G 926      50.161  71.124  72.487  1.00 36.08      6
ATOM   16111  CD  LYS G 926      49.704  71.075  73.945  1.00 35.26      6
ATOM   16112  CE  LYS G 926      48.181  71.196  74.083  1.00 35.46      6
ATOM   16113  NZ  LYS G 926      47.695  70.941  75.479  1.00 33.20      7
ATOM   16114  C   LYS G 926      49.323  73.765  69.810  1.00 22.00      6
ATOM   16115  O   LYS G 926      48.147  74.099  69.911  1.00 22.56      8
ATOM   16116  N   THR G 927      50.205  74.557  69.220  1.00 32.53      7
ATOM   16117  CA  THR G 927      49.726  75.820  68.688  1.00 32.90      6
ATOM   16118  CB  THR G 927      50.859  76.839  68.548  1.00 38.47      6
ATOM   16119  OG1 THR G 927      51.168  77.369  69.840  1.00 40.65      8
```

288

```
ATOM  16120  CG2 THR G 927      50.442  77.990  67.665  1.00 38.50      6
ATOM  16121  C   THR G 927      49.013  75.589  67.359  1.00 33.69      8
ATOM  16122  O   THR G 927      48.276  76.449  66.882  1.00 35.63      8
ATOM  16123  N   ALA G 928      49.209  74.416  66.767  1.00 47.73      7
ATOM  16124  CA  ALA G 928      48.528  74.091  65.514  1.00 46.88      6
ATOM  16125  CB  ALA G 928      49.274  73.001  64.762  1.00 46.71      6
ATOM  16126  C   ALA G 928      47.109  73.622  65.837  1.00 47.00      6
ATOM  16127  O   ALA G 928      46.167  73.939  65.108  1.00 46.91      8
ATOM  16128  N   ARG G 929      46.967  72.861  66.927  1.00 30.29      7
ATOM  16129  CA  ARG G 929      45.661  72.369  67.352  1.00 29.29      6
ATOM  16130  CB  ARG G 929      45.733  71.723  68.738  1.00 75.51      6
ATOM  16131  CG  ARG G 929      46.729  70.591  68.898  1.00 80.45      6
ATOM  16132  CD  ARG G 929      46.268  69.314  68.217  1.00 85.22      6
ATOM  16133  NE  ARG G 929      47.126  68.179  68.564  1.00 90.86      7
ATOM  16134  CZ  ARG G 929      47.014  66.956  68.043  1.00 94.45      6
ATOM  16135  NH1 ARG G 929      46.079  66.686  67.137  1.00 96.35      7
ATOM  16136  NH2 ARG G 929      47.838  65.993  68.435  1.00 96.30      7
ATOM  16137  C   ARG G 929      44.817  73.625  67.444  1.00 27.83      6
ATOM  16138  O   ARG G 929      43.850  73.794  66.695  1.00 27.04      8
ATOM  16139  N   LEU G 930      45.230  74.506  68.360  1.00 37.78      7
ATOM  16140  CA  LEU G 930      44.580  75.786  68.633  1.00 36.08      6
ATOM  16141  CB  LEU G 930      45.357  76.551  69.705  1.00 38.85      6
ATOM  16142  CG  LEU G 930      45.170  78.075  69.729  1.00 39.94      6
ATOM  16143  CD1 LEU G 930      43.713  78.447  69.969  1.00 40.31      6
ATOM  16144  CD2 LEU G 930      46.067  78.661  70.807  1.00 39.71      6
ATOM  16145  C   LEU G 930      44.438  76.664  67.397  1.00 34.88      6
ATOM  16146  O   LEU G 930      43.421  77.348  67.234  1.00 35.31      8
ATOM  16147  N   LEU G 931      45.456  76.663  66.537  1.00 17.30      7
ATOM  16148  CA  LEU G 931      45.386  77.462  65.323  1.00 15.74      6
ATOM  16149  CB  LEU G 931      46.662  77.328  64.496  1.00 19.22      6
ATOM  16150  CG  LEU G 931      47.465  78.611  64.291  1.00 17.16      6
ATOM  16151  CD1 LEU G 931      46.551  79.799  63.983  1.00 17.16      6
ATOM  16152  CD2 LEU G 931      48.249  78.881  65.543  1.00 17.18      6
ATOM  16153  C   LEU G 931      44.192  76.981  64.504  1.00 15.89      6
ATOM  16154  O   LEU G 931      43.617  77.709  63.704  1.00 15.27      8
ATOM  16155  N   ASP G 932      43.810  75.738  64.709  1.00 30.07      7
ATOM  16156  CA  ASP G 932      42.679  75.221  63.981  1.00 30.84      6
ATOM  16157  CB  ASP G 932      42.922  73.771  63.641  1.00 49.32      6
ATOM  16158  CG  ASP G 932      43.517  73.623  62.288  1.00 49.58      6
ATOM  16159  OD1 ASP G 932      42.754  73.822  61.324  1.00 50.23      8
ATOM  16160  OD2 ASP G 932      44.731  73.343  62.183  1.00 49.48      8
ATOM  16161  C   ASP G 932      41.415  75.384  64.784  1.00 30.57      6
ATOM  16162  O   ASP G 932      40.408  75.881  64.272  1.00 29.68      8
ATOM  16163  N   ALA G 933      41.470  74.958  66.041  1.00 16.72      7
ATOM  16164  CA  ALA G 933      40.331  75.087  66.913  1.00 15.81      6
ATOM  16165  CB  ALA G 933      40.772  75.071  68.354  1.00 13.87      6
ATOM  16166  C   ALA G 933      39.754  76.435  66.547  1.00 17.01      6
ATOM  16167  O   ALA G 933      38.594  76.536  66.156  1.00 18.18      8
ATOM  16168  N   LEU G 934      40.580  77.473  66.630  1.00 47.76      7
ATOM  16169  CA  LEU G 934      40.119  78.804  66.274  1.00 48.54      6
ATOM  16170  CB  LEU G 934      41.274  79.789  66.331  1.00 26.43      6
ATOM  16171  CG  LEU G 934      41.685  80.069  67.769  1.00 25.46      6
ATOM  16172  CD1 LEU G 934      42.888  80.979  67.763  1.00 25.41      6
ATOM  16173  CD2 LEU G 934      40.533  80.715  68.523  1.00 24.46      6
ATOM  16174  C   LEU G 934      39.478  78.801  64.887  1.00 49.38      6
ATOM  16175  O   LEU G 934      38.260  78.894  64.774  1.00 49.81      8
```

289

```
ATOM  16176  N    LYS G 935      40.284  78.677  63.839  1.00 39.42      7
ATOM  16177  CA   LYS G 935      39.746  78.649  62.489  1.00 40.39      6
ATOM  16178  CB   LYS G 935      40.587  77.751  61.576  1.00 22.21      6
ATOM  16179  CG   LYS G 935      40.052  77.705  60.134  1.00 20.96      6
ATOM  16180  CD   LYS G 935      40.696  76.653  59.240  1.00 20.28      6
ATOM  16181  CE   LYS G 935      40.313  75.241  59.641  1.00 22.50      6
ATOM  16182  NZ   LYS G 935      41.007  74.250  58.779  1.00 21.34      7
ATOM  16183  C    LYS G 935      38.305  78.135  62.469  1.00 41.82      6
ATOM  16184  O    LYS G 935      37.363  78.926  62.391  1.00 43.19      8
ATOM  16185  N    TYR G 936      38.135  76.816  62.555  1.00 41.92      7
ATOM  16186  CA   TYR G 936      36.803  76.217  62.509  1.00 41.52      6
ATOM  16187  CB   TYR G 936      36.797  74.858  63.205  1.00 38.50      6
ATOM  16188  CG   TYR G 936      35.470  74.093  63.158  1.00 39.63      6
ATOM  16189  CD1  TYR G 936      35.399  72.761  63.592  1.00 40.47      6
ATOM  16190  CE1  TYR G 936      34.179  72.067  63.634  1.00 41.86      6
ATOM  16191  CD2  TYR G 936      34.282  74.708  62.756  1.00 40.46      6
ATOM  16192  CE2  TYR G 936      33.055  74.025  62.801  1.00 41.21      6
ATOM  16193  CZ   TYR G 936      33.009  72.707  63.244  1.00 42.57      6
ATOM  16194  OH   TYR G 936      31.795  72.046  63.337  1.00 42.34      8
ATOM  16195  C    TYR G 936      35.749  77.110  63.127  1.00 40.80      6
ATOM  16196  O    TYR G 936      34.841  77.575  62.440  1.00 40.35      8
ATOM  16197  N    TYR G 937      35.869  77.355  64.422  1.00 31.70      7
ATOM  16198  CA   TYR G 937      34.899  78.186  65.108  1.00 32.79      6
ATOM  16199  CB   TYR G 937      35.287  78.315  66.566  1.00 25.49      6
ATOM  16200  CG   TYR G 937      34.947  77.070  67.309  1.00 26.11      6
ATOM  16201  CD1  TYR G 937      35.069  75.831  66.703  1.00 26.57      6
ATOM  16202  CE1  TYR G 937      34.786  74.668  67.386  1.00 26.88      6
ATOM  16203  CD2  TYR G 937      34.527  77.118  68.617  1.00 26.56      6
ATOM  16204  CE2  TYR G 937      34.245  75.966  69.316  1.00 26.74      6
ATOM  16205  CZ   TYR G 937      34.379  74.737  68.699  1.00 26.70      6
ATOM  16206  OH   TYR G 937      34.132  73.577  69.417  1.00 27.27      8
ATOM  16207  C    TYR G 937      34.697  79.555  64.489  1.00 33.93      6
ATOM  16208  O    TYR G 937      33.597  79.870  64.029  1.00 33.73      8
ATOM  16209  N    GLY G 938      35.747  80.369  64.473  1.00 35.73      7
ATOM  16210  CA   GLY G 938      35.634  81.695  63.897  1.00 35.91      6
ATOM  16211  C    GLY G 938      34.857  81.619  62.606  1.00 35.32      6
ATOM  16212  O    GLY G 938      33.959  82.419  62.337  1.00 37.07      8
ATOM  16213  N    PHE G 939      35.204  80.617  61.816  1.00 29.89      7
ATOM  16214  CA   PHE G 939      34.564  80.386  60.537  1.00 29.60      6
ATOM  16215  CB   PHE G 939      35.262  79.245  59.827  1.00 25.78      6
ATOM  16216  CG   PHE G 939      36.313  79.686  58.884  1.00 22.44      6
ATOM  16217  CD1  PHE G 939      37.627  79.330  59.087  1.00 21.66      6
ATOM  16218  CD2  PHE G 939      35.980  80.430  57.775  1.00 21.01      6
ATOM  16219  CE1  PHE G 939      38.597  79.700  58.200  1.00 22.12      6
ATOM  16220  CE2  PHE G 939      36.940  80.805  56.884  1.00 21.55      6
ATOM  16221  CZ   PHE G 939      38.255  80.441  57.091  1.00 21.92      6
ATOM  16222  C    PHE G 939      33.076  80.076  60.617  1.00 30.01      6
ATOM  16223  O    PHE G 939      32.259  80.793  60.041  1.00 29.48      8
ATOM  16224  N    THR G 940      32.737  78.994  61.310  1.00 44.62      7
ATOM  16225  CA   THR G 940      31.350  78.581  61.458  1.00 46.40      6
ATOM  16226  CB   THR G 940      31.268  77.198  62.091  1.00 38.21      6
ATOM  16227  OG1  THR G 940      29.894  76.852  62.320  1.00 39.10      8
ATOM  16228  CG2  THR G 940      32.012  77.197  63.406  1.00 39.48      6
ATOM  16229  C    THR G 940      30.531  79.550  62.319  1.00 46.96      6
ATOM  16230  O    THR G 940      29.306  79.632  62.190  1.00 46.79      8
ATOM  16231  N    LEU G 941      31.209  80.277  63.199  1.00 57.07      7
```

```
ATOM  16232  CA   LEU G 941      30.542  81.229  64.071  1.00  55.80      6
ATOM  16233  CB   LEU G 941      31.481  81.684  65.169  1.00  17.59      6
ATOM  16234  CG   LEU G 941      31.201  81.199  66.582  1.00  14.62      6
ATOM  16235  CD1  LEU G 941      29.720  80.889  66.690  1.00  13.87      6
ATOM  16236  CD2  LEU G 941      32.093  80.008  66.908  1.00  13.87      6
ATOM  16237  C    LEU G 941      30.050  82.458  63.338  1.00  56.54      6
ATOM  16238  O    LEU G 941      28.921  82.897  63.539  1.00  58.13      8
ATOM  16239  N    SER G 942      30.912  83.031  62.507  1.00  38.22      7
ATOM  16240  CA   SER G 942      30.550  84.221  61.754  1.00  36.17      6
ATOM  16241  CB   SER G 942      31.767  84.747  60.976  1.00  15.75      6
ATOM  16242  OG   SER G 942      32.160  83.849  59.956  1.00  13.87      8
ATOM  16243  C    SER G 942      29.395  83.936  60.795  1.00  36.01      6
ATOM  16244  O    SER G 942      28.696  84.851  60.371  1.00  36.77      8
ATOM  16245  N    THR G 943      29.188  82.663  60.467  1.00  43.57      7
ATOM  16246  CA   THR G 943      28.117  82.270  59.551  1.00  44.46      6
ATOM  16247  CB   THR G 943      28.366  80.876  58.957  1.00  64.62      6
ATOM  16248  OG1  THR G 943      29.587  80.890  58.211  1.00  68.58      8
ATOM  16249  CG2  THR G 943      27.227  80.479  58.035  1.00  64.19      6
ATOM  16250  C    THR G 943      26.754  82.262  60.226  1.00  43.28      6
ATOM  16251  O    THR G 943      25.882  83.053  59.869  1.00  43.43      8
ATOM  16252  N    THR G 944      26.568  81.356  61.183  1.00  35.33      7
ATOM  16253  CA   THR G 944      25.310  81.262  61.907  1.00  33.37      6
ATOM  16254  CB   THR G 944      25.474  80.478  63.197  1.00  16.49      6
ATOM  16255  OG1  THR G 944      26.259  81.242  64.118  1.00  16.86      8
ATOM  16256  CG2  THR G 944      26.162  79.181  62.935  1.00  15.53      6
ATOM  16257  C    THR G 944      24.866  82.669  62.288  1.00  33.77      6
ATOM  16258  O    THR G 944      23.706  83.047  62.105  1.00  34.79      8
ATOM  16259  N    SER G 945      25.811  83.437  62.818  1.00  34.99      7
ATOM  16260  CA   SER G 945      25.561  84.804  63.242  1.00  35.77      6
ATOM  16261  CB   SER G 945      26.860  85.411  63.765  1.00  60.62      6
ATOM  16262  OG   SER G 945      27.357  84.637  64.841  1.00  60.25      8
ATOM  16263  C    SER G 945      24.973  85.660  62.120  1.00  35.50      6
ATOM  16264  O    SER G 945      24.229  86.604  62.372  1.00  33.61      8
ATOM  16265  N    GLY G 946      25.321  85.325  60.883  1.00  47.59      7
ATOM  16266  CA   GLY G 946      24.804  86.044  59.727  1.00  47.53      6
ATOM  16267  C    GLY G 946      24.998  87.548  59.675  1.00  47.26      6
ATOM  16268  O    GLY G 946      24.105  88.305  60.060  1.00  47.50      8
ATOM  16269  N    ILE G 947      26.148  87.984  59.169  1.00  13.87      7
ATOM  16270  CA   ILE G 947      26.434  89.403  59.086  1.00  13.87      6
ATOM  16271  CB   ILE G 947      27.708  89.782  59.957  1.00  16.32      6
ATOM  16272  CG2  ILE G 947      27.835  88.882  61.166  1.00  13.93      6
ATOM  16273  CG1  ILE G 947      28.995  89.609  59.166  1.00  19.05      6
ATOM  16274  CD1  ILE G 947      29.408  90.836  58.371  1.00  22.06      6
ATOM  16275  C    ILE G 947      26.649  89.771  57.628  1.00  13.87      6
ATOM  16276  O    ILE G 947      27.322  89.053  56.927  1.00  13.87      8
ATOM  16277  N    ILE G 948      26.069  90.876  57.175  1.00  18.81      7
ATOM  16278  CA   ILE G 948      26.226  91.336  55.794  1.00  21.25      6
ATOM  16279  CB   ILE G 948      24.972  91.133  54.955  1.00  69.85      6
ATOM  16280  CG2  ILE G 948      24.818  89.694  54.598  1.00  73.01      6
ATOM  16281  CG1  ILE G 948      23.763  91.669  55.709  1.00  73.14      6
ATOM  16282  CD1  ILE G 948      23.483  90.985  57.045  1.00  75.70      6
ATOM  16283  C    ILE G 948      26.475  92.825  55.814  1.00  21.28      6
ATOM  16284  O    ILE G 948      26.707  93.388  56.876  1.00  21.54      8
ATOM  16285  N    THR G 949      26.426  93.466  54.645  1.00  24.02      7
ATOM  16286  CA   THR G 949      26.633  94.915  54.535  1.00  24.53      6
ATOM  16287  CB   THR G 949      27.927  95.319  53.733  1.00  13.87      6
```

291

```
ATOM   16288  OG1 THR G 949      29.050  95.405  54.612  1.00 13.87      8
ATOM   16289  CG2 THR G 949      27.764  96.671  53.081  1.00 13.87      6
ATOM   16290  C   THR G 949      25.465  95.354  53.730  1.00 27.51      6
ATOM   16291  O   THR G 949      25.432  95.114  52.539  1.00 28.51      8
ATOM   16292  N   ILE G 950      24.494  95.981  54.365  1.00 53.04      7
ATOM   16293  CA  ILE G 950      23.344  96.437  53.612  1.00 57.03      6
ATOM   16294  CB  ILE G 950      22.033  96.133  54.368  1.00150.33      6
ATOM   16295  CG2 ILE G 950      20.906  95.944  53.381  1.00153.09      6
ATOM   16296  CG1 ILE G 950      22.162  94.824  55.154  1.00151.95      6
ATOM   16297  CD1 ILE G 950      20.959  94.510  56.037  1.00149.50      6
ATOM   16298  C   ILE G 950      23.484  97.942  53.389  1.00 56.42      6
ATOM   16299  O   ILE G 950      24.037  98.648  54.231  1.00 57.15      8
ATOM   16300  N   GLY G 951      23.004  98.423  52.247  1.00 36.84      7
ATOM   16301  CA  GLY G 951      23.088  99.842  51.941  1.00 38.12      6
ATOM   16302  C   GLY G 951      23.001 100.685  53.194  1.00 39.04      6
ATOM   16303  O   GLY G 951      23.877 101.516  53.451  1.00 37.91      8
ATOM   16304  N   ILE G 952      21.946 100.459  53.980  1.00 40.65      7
ATOM   16305  CA  ILE G 952      21.740 101.196  55.226  1.00 43.79      6
ATOM   16306  CB  ILE G 952      20.234 101.313  55.632  1.00 54.20      6
ATOM   16307  CG2 ILE G 952      20.125 102.006  56.989  1.00 54.70      6
ATOM   16308  CG1 ILE G 952      19.436 102.094  54.569  1.00 54.49      6
ATOM   16309  CD1 ILE G 952      17.998 102.431  54.970  1.00 53.89      6
ATOM   16310  C   ILE G 952      22.469 100.499  56.351  1.00 46.09      6
ATOM   16311  O   ILE G 952      23.253 101.126  57.055  1.00 47.02      8
ATOM   16312  N   ASP G 953      22.196  99.205  56.522  1.00 66.77      7
ATOM   16313  CA  ASP G 953      22.841  98.408  57.570  1.00 68.11      6
ATOM   16314  CB  ASP G 953      22.499  96.923  57.408  1.00 67.00      6
ATOM   16315  CG  ASP G 953      23.227  96.033  58.410  1.00 67.44      6
ATOM   16316  OD1 ASP G 953      24.437  96.248  58.634  1.00 67.37      8
ATOM   16317  OD2 ASP G 953      22.593  95.104  58.960  1.00 66.91      8
ATOM   16318  C   ASP G 953      24.343  98.604  57.440  1.00 68.64      6
ATOM   16319  O   ASP G 953      25.019  97.836  56.749  1.00 68.56      8
ATOM   16320  N   ALA G 954      24.836  99.637  58.126  1.00 38.59      7
ATOM   16321  CA  ALA G 954      26.237 100.046  58.125  1.00 37.99      6
ATOM   16322  CB  ALA G 954      27.152  98.880  57.761  1.00135.82      6
ATOM   16323  C   ALA G 954      26.366 101.172  57.104  1.00 38.32      6
ATOM   16324  O   ALA G 954      25.447 101.399  56.313  1.00 36.88      8
ATOM   16325  N   ALA G 955      27.511 101.852  57.105  1.00 74.92      7
ATOM   16326  CA  ALA G 955      27.727 102.989  56.217  1.00 77.22      6
ATOM   16327  CB  ALA G 955      27.441 102.607  54.769  1.00 43.28      6
ATOM   16328  C   ALA G 955      26.692 103.985  56.733  1.00 78.26      6
ATOM   16329  O   ALA G 955      26.122 104.786  55.992  1.00 78.73      8
ATOM   16330  N   VAL G 956      26.479 103.895  58.040  1.00 52.05      7
ATOM   16331  CA  VAL G 956      25.515 104.681  58.789  1.00 53.27      6
ATOM   16332  CB  VAL G 956      25.330 104.058  60.169  1.00 42.34      6
ATOM   16333  CG1 VAL G 956      23.988 104.458  60.745  1.00 43.43      6
ATOM   16334  CG2 VAL G 956      25.482 102.548  60.067  1.00 42.43      6
ATOM   16335  C   VAL G 956      25.865 106.144  58.981  1.00 54.00      6
ATOM   16336  O   VAL G 956      26.384 106.528  60.026  1.00 54.46      8
ATOM   16337  N   ILE G 957      25.548 106.964  57.989  1.00 56.68      7
ATOM   16338  CA  ILE G 957      25.838 108.390  58.056  1.00 56.95      6
ATOM   16339  CB  ILE G 957      25.282 109.101  56.815  1.00 58.57      6
ATOM   16340  CG2 ILE G 957      25.523 110.599  56.928  1.00 59.02      6
ATOM   16341  CG1 ILE G 957      25.932 108.512  55.559  1.00 59.51      6
ATOM   16342  CD1 ILE G 957      25.338 108.989  54.262  1.00 60.62      6
ATOM   16343  C   ILE G 957      25.268 109.057  59.311  1.00 56.81      6
```

```
ATOM    16344  O    ILE G 957      24.055 109.115  59.496  1.00  56.77      8
ATOM    16345  N    PRO G 958      26.141 109.581  60.189  1.00  47.27      7
ATOM    16346  CD   PRO G 958      27.599 109.730  60.058  1.00  33.40      6
ATOM    16347  CA   PRO G 958      25.676 110.235  61.412  1.00  48.03      6
ATOM    16348  CB   PRO G 958      26.973 110.541  62.142  1.00  33.66      6
ATOM    16349  CG   PRO G 958      27.899 110.835  61.038  1.00  33.26      6
ATOM    16350  C    PRO G 958      24.902 111.493  61.086  1.00  49.11      6
ATOM    16351  O    PRO G 958      25.359 112.318  60.301  1.00  49.29      8
ATOM    16352  N    GLU G 959      23.728 111.637  61.687  1.00  80.84      7
ATOM    16353  CA   GLU G 959      22.896 112.809  61.449  1.00  81.89      6
ATOM    16354  CB   GLU G 959      21.656 112.767  62.351  1.00181.19      6
ATOM    16355  CG   GLU G 959      20.520 113.714  61.951  1.00183.33      6
ATOM    16356  CD   GLU G 959      19.508 113.074  61.008  1.00184.49      6
ATOM    16357  OE1  GLU G 959      18.931 112.027  61.377  1.00186.10      8
ATOM    16358  OE2  GLU G 959      19.283 113.619  59.905  1.00183.83      8
ATOM    16359  C    GLU G 959      23.740 114.035  61.780  1.00  81.69      6
ATOM    16360  O    GLU G 959      23.623 115.083  61.140  1.00  81.67      8
ATOM    16361  N    GLU G 960      24.614 113.875  62.769  1.00  48.75      7
ATOM    16362  CA   GLU G 960      25.483 114.956  63.219  1.00  49.26      6
ATOM    16363  CB   GLU G 960      26.228 114.532  64.484  1.00  98.69      6
ATOM    16364  CG   GLU G 960      27.176 113.381  64.287  1.00  99.78      6
ATOM    16365  CD   GLU G 960      27.496 112.681  65.590  1.00101.03      6
ATOM    16366  OE1  GLU G 960      26.606 111.979  66.123  1.00101.73      8
ATOM    16367  OE2  GLU G 960      28.633 112.837  66.085  1.00101.81      8
ATOM    16368  C    GLU G 960      26.481 115.461  62.181  1.00  49.10      6
ATOM    16369  O    GLU G 960      27.436 116.156  62.520  1.00  47.79      8
ATOM    16370  N    LYS G 961      26.268 115.111  60.918  1.00  89.18      7
ATOM    16371  CA   LYS G 961      27.166 115.575  59.873  1.00  89.46      6
ATOM    16372  CB   LYS G 961      26.993 114.759  58.590  1.00  47.41      6
ATOM    16373  CG   LYS G 961      27.998 115.100  57.494  1.00  47.64      6
ATOM    16374  CD   LYS G 961      27.741 114.268  56.242  1.00  48.85      6
ATOM    16375  CE   LYS G 961      28.752 114.571  55.139  1.00  49.40      6
ATOM    16376  NZ   LYS G 961      28.469 113.812  53.887  1.00  50.10      7
ATOM    16377  C    LYS G 961      26.774 117.008  59.618  1.00  89.33      6
ATOM    16378  O    LYS G 961      27.611 117.904  59.671  1.00  89.78      8
ATOM    16379  N    GLN G 962      25.486 117.210  59.358  1.00  66.44      7
ATOM    16380  CA   GLN G 962      24.965 118.539  59.092  1.00·66.75      6
ATOM    16381  CB   GLN G 962      23.451 118.586  59.306  1.00  95.35      6
ATOM    16382  CG   GLN G 962      22.644 117.716  58.349  1.00  96.68      6
ATOM    16383  CD   GLN G 962      21.161 118.076  58.341  1.00  97.30      6
ATOM    16384  OE1  GLN G 962      20.776 119.133  57.847  1.00  96.62      8
ATOM    16385  NE2  GLN G 962      20.326 117.199  58.896  1.00  97.91      7
ATOM    16386  C    GLN G 962      25.655 119.536  60.016  1.00  66.49      6
ATOM    16387  O    GLN G 962      26.519 120.282  59.571  1.00  65.94      8
ATOM    16388  N    ARG G 963      25.291 119.542  61.296  1.00  71.70      7
ATOM    16389  CA   ARG G 963      25.919 120.461  62.247  1.00  71.44      6
ATOM    16390  CB   ARG G 963      25.975 119.837  63.659  1.00  61.60      6
ATOM    16391  CG   ARG G 963      27.036 120.428  64.608  1.00  60.57      6
ATOM    16392  CD   ARG G 963      27.098 119.665  65.944  1.00  61.13      6
ATOM    16393  NE   ARG G 963      28.468 119.499  66.441  1.00  61.92      7
ATOM    16394  CZ   ARG G 963      28.787 118.963  67.621  1.00  62.68      6
ATOM    16395  NH1  ARG G 963      27.838 118.539  68.444  1.00  63.19      7
ATOM    16396  NH2  ARG G 963      30.059 118.843  67.980  1.00  61.97      7
ATOM    16397  C    ARG G 963      27.322 120.806  61.752  1.00  71.22      6
ATOM    16398  O    ARG G 963      27.583 121.953  61.424  1.00  71.34      8
ATOM    16399  N    TYR G 964      28.206 119.811  61.656  1.00107.91      7
```

293

```
ATOM   16400   CA   TYR G 964      29.577 120.052  61.192  1.00106.93      6
ATOM   16401   CB   TYR G 964      30.375 118.751  61.153  1.00 68.73      6
ATOM   16402   CG   TYR G 964      30.577 118.109  62.503  1.00 68.38      6
ATOM   16403   CD1  TYR G 964      29.520 117.488  63.157  1.00 68.40      6
ATOM   16404   CE1  TYR G 964      29.697 116.859  64.383  1.00 68.74      6
ATOM   16405   CD2  TYR G 964      31.833 118.095  63.113  1.00 68.22      6
ATOM   16406   CE2  TYR G 964      32.027 117.468  64.342  1.00 68.53      6
ATOM   16407   CZ   TYR G 964      30.952 116.849  64.971  1.00 69.16      6
ATOM   16408   OH   TYR G 964      31.125 116.207  66.176  1.00 69.81      8
ATOM   16409   C    TYR G 964      29.600 120.706  59.814  1.00106.42      6
ATOM   16410   O    TYR G 964      30.171 121.786  59.644  1.00106.89      8
ATOM   16411   N    LEU G 965      28.997 120.044  58.828  1.00 84.86      7
ATOM   16412   CA   LEU G 965      28.916 120.599  57.480  1.00 84.27      6
ATOM   16413   CB   LEU G 965      28.087 119.682  56.579  1.00 49.14      6
ATOM   16414   CG   LEU G 965      28.766 119.012  55.383  1.00 47.71      6
ATOM   16415   CD1  LEU G 965      28.853 119.988  54.234  1.00 47.32      6
ATOM   16416   CD2  LEU G 965      30.144 118.507  55.786  1.00 47.30      6
ATOM   16417   C    LEU G 965      28.184 121.911  57.706  1.00 84.16      6
ATOM   16418   O    LEU G 965      27.655 122.127  58.795  1.00 84.72      8
ATOM   16419   N    GLU G 966      28.128 122.784  56.708  1.00 42.27      7
ATOM   16420   CA   GLU G 966      27.445 124.070  56.904  1.00 42.38      6
ATOM   16421   CB   GLU G 966      25.981 123.871  57.303  1.00 91.78      6
ATOM   16422   CG   GLU G 966      25.298 125.180  57.596  1.00 94.62      6
ATOM   16423   CD   GLU G 966      25.716 126.263  56.616  1.00 96.45      6
ATOM   16424   OE1  GLU G 966      25.489 126.086  55.401  1.00 97.78      8
ATOM   16425   OE2  GLU G 966      26.279 127.285  57.058  1.00 97.51      8
ATOM   16426   C    GLU G 966      28.160 124.889  57.979  1.00 41.33      6
ATOM   16427   O    GLU G 966      28.475 126.045  57.757  1.00 40.16      8
ATOM   16428   N    GLU G 967      28.377 124.313  59.158  1.00 36.77      7
ATOM   16429   CA   GLU G 967      29.135 125.021  60.166  1.00 35.92      6
ATOM   16430   CB   GLU G 967      29.340 124.181  61.421  1.00 51.25      6
ATOM   16431   CG   GLU G 967      28.196 124.274  62.402  1.00 51.43      6
ATOM   16432   CD   GLU G 967      28.528 123.686  63.756  1.00 51.72      6
ATOM   16433   OE1  GLU G 967      29.613 123.083  63.915  1.00 51.54      8
ATOM   16434   OE2  GLU G 967      27.693 123.828  64.670  1.00 53.39      8
ATOM   16435   C    GLU G 967      30.454 125.196  59.435  1.00 35.75      6
ATOM   16436   O    GLU G 967      31.121 126.227  59.534  1.00 35.02      8
ATOM   16437   N    ALA G 968      30.820 124.170  58.679  1.00 38.97      7
ATOM   16438   CA   ALA G 968      32.030 124.236  57.885  1.00 40.14      6
ATOM   16439   CB   ALA G 968      32.121 123.028  56.962  1.00 96.20      6
ATOM   16440   C    ALA G 968      31.848 125.509  57.073  1.00 41.00      6
ATOM   16441   O    ALA G 968      32.798 126.254  56.836  1.00 40.00      8
ATOM   16442   N    ASP G 969      30.600 125.746  56.670  1.00 59.01      7
ATOM   16443   CA   ASP G 969      30.232 126.922  55.888  1.00 61.20      6
ATOM   16444   CB   ASP G 969      28.871 126.725  55.210  1.00 93.07      6
ATOM   16445   CG   ASP G 969      28.984 125.999  53.892  1.00 95.50      6
ATOM   16446   OD1  ASP G 969      29.627 126.548  52.971  1.00 96.94      8
ATOM   16447   OD2  ASP G 969      28.437 124.882  53.776  1.00 97.48      8
ATOM   16448   C    ASP G 969      30.204 128.185  56.737  1.00 61.41      6
ATOM   16449   O    ASP G 969      31.253 128.742  56.997  1.00 60.85      8
ATOM   16450   N    ARG G 970      29.016 128.612  57.175  1.00 70.79      7
ATOM   16451   CA   ARG G 970      28.854 129.832  57.968  1.00 70.46      6
ATOM   16452   CB   ARG G 970      28.246 129.543  59.355  1.00 74.41      6
ATOM   16453   CG   ARG G 970      29.233 129.035  60.404  1.00 76.46      6
ATOM   16454   CD   ARG G 970      28.655 128.957  61.822  1.00 76.91      6
ATOM   16455   NE   ARG G 970      29.668 128.497  62.779  1.00 77.99      7
```

294

```
ATOM   16456   CZ   ARG G 970      29.459 128.318  64.081  1.00 79.41      6
ATOM   16457   NH1  ARG G 970      28.268 128.559  64.617  1.00 79.74      7
ATOM   16458   NH2  ARG G 970      30.448 127.892  64.852  1.00 79.74      7
ATOM   16459   C    ARG G 970      30.197 130.524  58.117  1.00 70.09      6
ATOM   16460   O    ARG G 970      30.385 131.605  57.574  1.00 71.11      8
ATOM   16461   N    LYS G 971      31.133 129.881  58.822  1.00 36.18      7
ATOM   16462   CA   LYS G 971      32.486 130.413  59.046  1.00 36.61      6
ATOM   16463   CB   LYS G 971      33.105 129.788  60.301  1.00 73.91      6
ATOM   16464   CG   LYS G 971      32.341 130.102  61.587  1.00 75.60      6
ATOM   16465   CD   LYS G 971      33.044 129.546  62.813  1.00 75.54      6
ATOM   16466   CE   LYS G 971      32.385 130.050  64.079  1.00 76.02      6
ATOM   16467   NZ   LYS G 971      33.199 129.734  65.278  1.00 75.83      7
ATOM   16468   C    LYS G 971      33.402 130.175  57.846  1.00 36.88      6
ATOM   16469   O    LYS G 971      34.606 129.955  57.994  1.00 35.74      8
ATOM   16470   N    LEU G 972      32.789 130.232  56.663  1.00 61.28      7
ATOM   16471   CA   LEU G 972      33.442 130.060  55.367  1.00 61.61      6
ATOM   16472   CB   LEU G 972      32.740 128.959  54.562  1.00 79.55      6
ATOM   16473   CG   LEU G 972      33.582 127.909  53.825  1.00 79.97      6
ATOM   16474   CD1  LEU G 972      32.643 126.972  53.087  1.00 79.85      6
ATOM   16475   CD2  LEU G 972      34.552 128.566  52.853  1.00 79.58      6
ATOM   16476   C    LEU G 972      33.258 131.411  54.667  1.00 61.34      6
ATOM   16477   O    LEU G 972      34.223 132.037  54.227  1.00 60.98      8
ATOM   16478   N    ARG G 973      32.007 131.852  54.561  1.00 56.08      7
ATOM   16479   CA   ARG G 973      31.716 133.152  53.967  1.00 56.75      6
ATOM   16480   CB   ARG G 973      30.212 133.408  53.922  1.00102.76      6
ATOM   16481   CG   ARG G 973      29.465 132.463  53.019  1.00103.34      6
ATOM   16482   CD   ARG G 973      27.964 132.679  53.099  1.00104.23      6
ATOM   16483   NE   ARG G 973      27.265 131.758  52.207  1.00106.13      7
ATOM   16484   CZ   ARG G 973      25.945 131.673  52.096  1.00106.52      6
ATOM   16485   NH1  ARG G 973      25.165 132.461  52.826  1.00107.03      7
ATOM   16486   NH2  ARG G 973      25.407 130.794  51.258  1.00107.13      7
ATOM   16487   C    ARG G 973      32.372 134.132  54.917  1.00 56.49      6
ATOM   16488   O    ARG G 973      32.635 135.269  54.582  1.00 56.40      8
ATOM   16489   N    GLN G 974      32.616 133.671  56.130  1.00 49.87      7
ATOM   16490   CA   GLN G 974      33.283 134.491  57.108  1.00 50.68      6
ATOM   16491   CB   GLN G 974      33.125 133.904  58.515  1.00 69.44      6
ATOM   16492   CG   GLN G 974      31.747 134.139  59.138  1.00 69.56      6
ATOM   16493   CD   GLN G 974      31.676 133.683  60.586  1.00 69.08      6
ATOM   16494   OE1  GLN G 974      32.574 133.960  61.380  1.00 68.22      8
ATOM   16495   NE2  GLN G 974      30.596 132.994  60.937  1.00 69.06      7
ATOM   16496   C    GLN G 974      34.746 134.489  56.704  1.00 51.23      6
ATOM   16497   O    GLN G 974      35.567 135.157  57.316  1.00 51.28      8
ATOM   16498   N    ILE G 975      35.070 133.725  55.668  1.00 73.01      7
ATOM   16499   CA   ILE G 975      36.442 133.648  55.195  1.00 74.05      6
ATOM   16500   CB   ILE G 975      36.955 132.174  55.138  1.00 66.18      6
ATOM   16501   CG2  ILE G 975      36.995 131.660  53.695  1.00 66.25      6
ATOM   16502   CG1  ILE G 975      38.344 132.084  55.778  1.00 66.26      6
ATOM   16503   CD1  ILE G 975      39.334 133.106  55.269  1.00 67.69      6
ATOM   16504   C    ILE G 975      36.515 134.263  53.816  1.00 74.60      6
ATOM   16505   O    ILE G 975      37.445 135.009  53.520  1.00 75.05      8
ATOM   16506   N    GLU G 976      35.526 133.953  52.978  1.00 60.49      7
ATOM   16507   CA   GLU G 976      35.482 134.483  51.617  1.00 61.71      6
ATOM   16508   CB   GLU G 976      34.583 133.621  50.718  1.00114.33      6
ATOM   16509   CG   GLU G 976      34.937 132.127  50.690  1.00115.06      6
ATOM   16510   CD   GLU G 976      34.323 131.381  49.501  1.00114.53      6
ATOM   16511   OE1  GLU G 976      33.257 131.803  49.002  1.00113.15      8
```

295

```
ATOM   16512  OE2 GLU G 976      34.905 130.361  49.073  1.00114.48      8
ATOM   16513  C   GLU G 976      34.979 135.926  51.627  1.00 61.73      6
ATOM   16514  O   GLU G 976      34.806 136.539  50.575  1.00 61.75      8
ATOM   16515  N   GLN G 977      34.735 136.449  52.828  1.00 89.50      7
ATOM   16516  CA  GLN G 977      34.290 137.829  53.032  1.00 89.42      6
ATOM   16517  CB  GLN G 977      32.946 137.878  53.767  1.00129.61      6
ATOM   16518  CG  GLN G 977      31.729 137.620  52.876  1.00131.76      6
ATOM   16519  CD  GLN G 977      31.061 138.901  52.404  1.00132.90      6
ATOM   16520  OE1 GLN G 977      31.715 139.799  51.877  1.00134.36'     8
ATOM   16521  NE2 GLN G 977      29.749 138.988  52.591  1.00133.24      7
ATOM   16522  C   GLN G 977      35.369 138.483  53.877  1.00 88.52      6
ATOM   16523  O   GLN G 977      35.669 139.661  53.716  1.00 89.61      8
ATOM   16524  N   ALA G 978      35.950 137.693  54.777  1.00 53.12      7
ATOM   16525  CA  ALA G 978      37.041 138.147  55.636  1.00 50.88      6
ATOM   16526  CB  ALA G 978      37.266 137.167  56.776  1.00 47.24      6
ATOM   16527  C   ALA G 978      38.292 138.220  54.765  1.00 49.52      6
ATOM   16528  O   ALA G 978      39.414 137.974  55.220  1.00 48.83      8
ATOM   16529  N   TYR G 979      38.063 138.537  53.497  1.00 43.07      7
ATOM   16530  CA  TYR G 979      39.110 138.674  52.503  1.00 42.64      6
ATOM   16531  CB  TYR G 979      39.216 137.416  51.629  1.00 64.45      6
ATOM   16532  CG  TYR G 979      40.275 137.502  50.543  1.00 63.51      6
ATOM   16533  CD1 TYR G 979      41.590 137.845  50.854  1.00 62.98      6
ATOM   16534  CE1 TYR G 979      42.562 137.945  49.862  1.00 64.04      6
ATOM   16535  CD2 TYR G 979      39.955 137.255  49.203  1.00 63.09      6
ATOM   16536  CE2 TYR G 979      40.922 137.353  48.196  1.00 63.46      6
ATOM   16537  CZ  TYR G 979      42.227 137.703  48.533  1.00 64.43      6
ATOM   16538  OH  TYR G 979      43.195 137.845  47.552  1.00 65.47      8
ATOM   16539  C   TYR G 979      38.681 139.850  51.662  1.00 42.30      6
ATOM   16540  O   TYR G 979      39.494 140.685  51.296  1.00 41.61      8
ATOM   16541  N   GLU G 980      37.392 139.920  51.357  1.00 48.04      7
ATOM   16542  CA  GLU G 980      36.884 141.034  50.572  1.00 48.99      6
ATOM   16543  CB  GLU G 980      35.416 140.810  50.204  1.00 54.42      6
ATOM   16544  CG  GLU G 980      35.198 139.531  49.407  1.00 54.26      6
ATOM   16545  CD  GLU G 980      33.750 139.310  49.018  1.00 54.22      6
ATOM   16546  OE1 GLU G 980      32.893 139.196  49.922  1.00 52.78      8
ATOM   16547  OE2 GLU G 980      33.471 139.246  47.798  1.00 54.74      8
ATOM   16548  C   GLU G 980      37.041 142.233  51.487  1.00 49.98      6
ATOM   16549  O   GLU G 980      36.668 143.353  51.140  1.00 50.15      8
ATOM   16550  N   MET G 981      37.610 141.957  52.662  1.00 58.41      7
ATOM   16551  CA  MET G 981      37.885 142.941  53.703  1.00 59.37      6
ATOM   16552  CB  MET G 981      37.512 142.382  55.068  1.00 62.35      6
ATOM   16553  CG  MET G 981      36.037 142.107  55.230  1.00 61.41      6
ATOM   16554  SD  MET G 981      35.134 143.533  55.807  1.00 61.27     16
ATOM   16555  CE  MET G 981      35.630 143.514  57.569  1.00 60.29      6
ATOM   16556  C   MET G 981      39.372 143.239  53.701  1.00 60.67      6
ATOM   16557  O   MET G 981      40.118 142.720  52.871  1.00 60.62      8
ATOM   16558  N   GLY G 982      39.810 144.061  54.646  1.00136.85      7
ATOM   16559  CA  GLY G 982      41.218 144.399  54.709  1.00138.53      6
ATOM   16560  C   GLY G 982      42.059 143.340  55.397  1.00138.70      6
ATOM   16561  O   GLY G 982      43.288 143.446  55.429  1.00138.31      8
ATOM   16562  N   PHE G 983      41.409 142.312  55.938  1.00 99.07      7
ATOM   16563  CA  PHE G 983      42.136 141.262  56.643  1.00 99.25      6
ATOM   16564  CB  PHE G 983      41.452 140.950  57.985  1.00106.86      6
ATOM   16565  CG  PHE G 983      41.470 142.111  58.938  1.00107.86      6
ATOM   16566  CD1 PHE G 983      40.489 143.094  58.871  1.00107.70      6
ATOM   16567  CD2 PHE G 983      42.538 142.292  59.815  1.00108.55      6
```

296

```
ATOM   16568  CE1 PHE G 983      40.579 144.250  59.657  1.00109.68      6
ATOM   16569  CE2 PHE G 983      42.638 143.442  60.604  1.00109.22      6
ATOM   16570  CZ  PHE G 983      41.658 144.424  60.523  1.00110.07      6
ATOM   16571  C   PHE G 983      42.380 139.986  55.855  1.00 98.41      6
ATOM   16572  O   PHE G 983      41.688 139.679  54.881  1.00 97.87      8
ATOM   16573  N   LEU G 984      43.396 139.257  56.300  1.00 74.49      7
ATOM   16574  CA  LEU G 984      43.804 138.017  55.672  1.00 73.90      6
ATOM   16575  CB  LEU G 984      42.699 136.975  55.747  1.00 35.43      6
ATOM   16576  CG  LEU G 984      42.688 136.148  57.024  1.00 35.39      6
ATOM   16577  CD1 LEU G 984      42.017 134.808  56.735  1.00 35.23      6
ATOM   16578  CD2 LEU G 984      44.120 135.934  57.503  1.00 35.06      6
ATOM   16579  C   LEU G 984      44.224 138.187  54.227  1.00 74.50      6
ATOM   16580  O   LEU G 984      43.541 138.837  53.425  1.00 74.35      8
ATOM   16581  N   THR G 985      45.358 137.571  53.918  1.00103.35      7
ATOM   16582  CA  THR G 985      45.956 137.592  52.595  1.00102.52      6
ATOM   16583  CB  THR G 985      47.474 137.619  52.718  1.00 63.64      6
ATOM   16584  OG1 THR G 985      48.058 137.154  51.497  1.00 63.76      8
ATOM   16585  CG2 THR G 985      47.926 136.727  53.876  1.00 62.10      6
ATOM   16586  C   THR G 985      45.562 136.333  51.842  1.00103.15      6
ATOM   16587  O   THR G 985      45.472 135.267  52.441  1.00104.38      8
ATOM   16588  N   ASP G 986      45.336 136.446  50.535  1.00 40.12      7
ATOM   16589  CA  ASP G 986      44.954 135.283  49.725  1.00 40.26      6
ATOM   16590  CB  ASP G 986      45.248 135.544  48.237  1.00 48.74      6
ATOM   16591  CG  ASP G 986      44.947 134.333  47.349  1.00 48.21      6
ATOM   16592  OD1 ASP G 986      45.667 133.316  47.456  1.00 48.01      8
ATOM   16593  OD2 ASP G 986      43.992 134.397  46.542  1.00 46.65      8
ATOM   16594  C   ASP G 986      45.682 134.017  50.191  1.00 40.96      6
ATOM   16595  O   ASP G 986      45.047 133.019  50.526  1.00 40.37      8
ATOM   16596  N   ARG G 987      47.012 134.076  50.212  1.00 72.46      7
ATOM   16597  CA  ARG G 987      47.844 132.958  50.652  1.00 73.44      6
ATOM   16598  CB  ARG G 987      49.291 133.435  50.835  1.00162.20      6
ATOM   16599  CG  ARG G 987      50.253 132.405  51.421  1.00164.64      6
ATOM   16600  CD  ARG G 987      51.667 132.980  51.530  1.00167.31      6
ATOM   16601  NE  ARG G 987      52.593 132.073  52.206  1.00169.35      7
ATOM   16602  CZ  ARG G 987      53.890 132.315  52.379  1.00169.89      6
ATOM   16603  NH1 ARG G 987      54.429 133.441  51.926  1.00169.74      7
ATOM   16604  NH2 ARG G 987      54.652 131.432  53.011  1.00170.59      7
ATOM   16605  C   ARG G 987      47.308 132.389  51.966  1.00 73.13      6
ATOM   16606  O   ARG G 987      46.797 131.272  52.007  1.00 73.67      8
ATOM   16607  N   GLU G 988      47.420 133.165  53.039  1.00 64.26      7
ATOM   16608  CA  GLU G 988      46.942 132.730  54.346  1.00 64.14      6
ATOM   16609  CB  GLU G 988      47.285 133.772  55.412  1.00196.85      6
ATOM   16610  CG  GLU G 988      48.776 134.040  55.546  1.00201.74      6
ATOM   16611  CD  GLU G 988      49.588 132.763  55.682  1.00203.98      6
ATOM   16612  OE1 GLU G 988      49.299 131.963  56.599  1.00205.25      8
ATOM   16613  OE2 GLU G 988      50.521 132.560  54.874  1.00204.76      8
ATOM   16614  C   GLU G 988      45.442 132.497  54.318  1.00 62.52      6
ATOM   16615  O   GLU G 988      44.895 131.794  55.160  1.00 62.41      8
ATOM   16616  N   ARG G 989      44.776 133.101  53.346  1.00 50.18      7
ATOM   16617  CA  ARG G 989      43.343 132.938  53.216  1.00 48.71      6
ATOM   16618  CB  ARG G 989      42.800 133.827  52.107  1.00 78.53      6
ATOM   16619  CG  ARG G 989      41.412 133.452  51.682  1.00 79.47      6
ATOM   16620  CD  ARG G 989      40.959 134.300  50.526  1.00 80.65      6
ATOM   16621  NE  ARG G 989      39.707 133.797  49.983  1.00 81.51      7
ATOM   16622  CZ  ARG G 989      39.588 132.627  49.372  1.00 82.43      6
ATOM   16623  NH1 ARG G 989      40.650 131.839  49.221  1.00 82.82      7
```

297

```
ATOM   16624  NH2 ARG G 989      38.403 132.244  48.920  1.00 83.11      7
ATOM   16625  C   ARG G 989      43.125 131.487  52.863  1.00 47.79      6
ATOM   16626  O   ARG G 989      42.602 130.728  53.661  1.00 46.81      8
ATOM   16627  N   TYR G 990      43.524 131.106  51.657  1.00100.39      7
ATOM   16628  CA  TYR G 990      43.388 129.723  51.230  1.00 99.27      6
ATOM   16629  CB  TYR G 990      44.283 129.459  50.021  1.00 48.00      6
ATOM   16630  CG  TYR G 990      44.767 128.030  49.903  1.00 47.49      6
ATOM   16631  CD1 TYR G 990      44.056 127.088  49.159  1.00 46.75      6
ATOM   16632  CE1 TYR G 990      44.493 125.777  49.058  1.00 46.56      6
ATOM   16633  CD2 TYR G 990      45.934 127.620  50.548  1.00 47.38      6
ATOM   16634  CE2 TYR G 990      46.379 126.315  50.458  1.00 47.53      6
ATOM   16635  CZ  TYR G 990      45.656 125.397  49.711  1.00 46.98      6
ATOM   16636  OH  TYR G 990      46.099 124.098  49.619  1.00 48.16      8
ATOM   16637  C   TYR G 990      43.809 128.823  52.386  1.00 99.19      6
ATOM   16638  O   TYR G 990      43.080 127.907  52.763  1.00100.55      8
ATOM   16639  N   ASP G 991      44.985 129.097  52.948  1.00 45.47      7
ATOM   16640  CA  ASP G 991      45.508 128.315  54.061  1.00 44.34      6
ATOM   16641  CB  ASP G 991      46.802 128.933  54.558  1.00 71.37      6
ATOM   16642  CG  ASP G 991      47.986 128.454  53.783  1.00 71.72      6
ATOM   16643  OD1 ASP G 991      47.813 128.194  52.572  1.00 71.11      8
ATOM   16644  OD2 ASP G 991      49.081 128.339  54.378  1.00 70.92      8
ATOM   16645  C   ASP G 991      44.535 128.154  55.224  1.00 43.77      6
ATOM   16646  O   ASP G 991      44.849 127.505  56.224  1.00 44.24      8
ATOM   16647  N   GLN G 992      43.360 128.761  55.090  1.00 67.50      7
ATOM   16648  CA  GLN G 992      42.311 128.673  56.097  1.00 66.59      6
ATOM   16649  CB  GLN G 992      41.524 129.984  56.175  1.00 87.39      6
ATOM   16650  CG  GLN G 992      40.962 130.293  57.541  1.00 88.50      6
ATOM   16651  CD  GLN G 992      42.054 130.476  58.579  1.00 89.39      6
ATOM   16652  OE1 GLN G 992      42.940 131.318  58.427  1.00 89.27      8
ATOM   16653  NE2 GLN G 992      41.994 129.685  59.641  1.00 90.51      7
ATOM   16654  C   GLN G 992      41.417 127.576  55.561  1.00 64.89      6
ATOM   16655  O   GLN G 992      41.330 126.498  56.142  1.00 64.31      8
ATOM   16656  N   VAL G 993      40.788 127.867  54.422  1.00 41.54      7
ATOM   16657  CA  VAL G 993      39.888 126.945  53.728  1.00 39.16      6
ATOM   16658  CB  VAL G 993      39.761 127.310  52.241  1.00 93.99      6
ATOM   16659  CG1 VAL G 993      38.581 126.573  51.626  1.00 96.58      6
ATOM   16660  CG2 VAL G 993      39.609 128.816  52.088  1.00 94.44      6
ATOM   16661  C   VAL G 993      40.393 125.512  53.816  1.00 36.63      6
ATOM   16662  O   VAL G 993      39.606 124.561  53.844  1.00 35.42      8
ATOM   16663  N   ILE G 994      41.713 125.367  53.849  1.00 39.68      7
ATOM   16664  CA  ILE G 994      42.310 124.059  53.955  1.00 37.87      6
ATOM   16665  CB  ILE G 994      43.762 124.050  53.473  1.00 46.80      6
ATOM   16666  CG2 ILE G 994      44.459 122.772  53.932  1.00 46.67      6
ATOM   16667  CG1 ILE G 994      43.796 124.180  51.948  1.00 45.87      6
ATOM   16668  CD1 ILE G 994      43.123 123.050  51.185  1.00 46.35      6
ATOM   16669  C   ILE G 994      42.266 123.649  55.405  1.00 37.18      6
ATOM   16670  O   ILE G 994      41.694 122.619  55.731  1.00 37.74      8
ATOM   16671  N   GLN G 995      42.852 124.451  56.284  1.00 54.87      7
ATOM   16672  CA  GLN G 995      42.839 124.096  57.698  1.00 55.60      6
ATOM   16673  CB  GLN G 995      43.404 125.227  58.558  1.00 72.70      6
ATOM   16674  CG  GLN G 995      43.653 124.826  60.008  1.00 74.66      6
ATOM   16675  CD  GLN G 995      44.126 125.986  60.854  1.00 75.97      6
ATOM   16676  OE1 GLN G 995      45.143 126.616  60.554  1.00 76.13      8
ATOM   16677  NE2 GLN G 995      43.387 126.282  61.917  1.00 76.58      7
ATOM   16678  C   GLN G 995      41.402 123.809  58.109  1.00 54.89      6
ATOM   16679  O   GLN G 995      41.131 122.890  58.883  1.00 54.68      8
```

298

```
ATOM   16680  N    LEU G  996      40.481 124.604  57.578  1.00 44.32      7
ATOM   16681  CA   LEU G  996      39.064 124.428  57.865  1.00 41.61      6
ATOM   16682  CB   LEU G  996      38.231 125.439  57.073  1.00 13.87      6
ATOM   16683  CG   LEU G  996      36.718 125.255  57.122  1.00 13.87      6
ATOM   16684  CD1  LEU G  996      36.220 125.289  58.562  1.00 13.87      6
ATOM   16685  CD2  LEU G  996      36.077 126.339  56.290  1.00 13.87      6
ATOM   16686  C    LEU G  996      38.646 123.016  57.480  1.00 40.91      6
ATOM   16687  O    LEU G  996      38.664 122.109  58.309  1.00 40.33      8
ATOM   16688  N    TRP G  997      38.292 122.835  56.210  1.00 41.58      7
ATOM   16689  CA   TRP G  997      37.853 121.541  55.737  1.00 40.97      6
ATOM   16690  CB   TRP G  997      37.819 121.512  54.211  1.00 27.79      6
ATOM   16691  CG   TRP G  997      36.620 122.245  53.646  1.00 24.48      6
ATOM   16692  CD2  TRP G  997      35.239 121.896  53.826  1.00 23.12      6
ATOM   16693  CE2  TRP G  997      34.470 122.860  53.135  1.00 22.07      6
ATOM   16694  CE3  TRP G  997      34.576 120.859  54.504  1.00 23.69      6
ATOM   16695  CD1  TRP G  997      36.626 123.377  52.874  1.00 22.58      6
ATOM   16696  NE1  TRP G  997      35.340 123.751  52.564  1.00 21.39      7
ATOM   16697  CZ2  TRP G  997      33.069 122.819  53.104  1.00 22.49      6
ATOM   16698  CZ3  TRP G  997      33.176 120.817  54.474  1.00 23.06      6
ATOM   16699  CH2  TRP G  997      32.443 121.792  53.777  1.00 23.23      6
ATOM   16700  C    TRP G  997      38.703 120.414  56.283  1.00 43.11      6
ATOM   16701  O    TRP G  997      38.178 119.360  56.630  1.00 44.67      8
ATOM   16702  N    THR G  998      40.010 120.627  56.396  1.00 20.39      7
ATOM   16703  CA   THR G  998      40.857 119.559  56.916  1.00 22.56      6
ATOM   16704  CB   THR G  998      42.329 119.960  57.050  1.00 67.19      6
ATOM   16705  OG1  THR G  998      42.854 120.323  55.767  1.00 69.15      8
ATOM   16706  CG2  THR G  998      43.133 118.787  57.587  1.00 67.83      6
ATOM   16707  C    THR G  998      40.351 119.192  58.281  1.00 23.80      6
ATOM   16708  O    THR G  998      40.033 118.044  58.526  1.00 23.47      8
ATOM   16709  N    GLU G  999      40.262 120.183  59.159  1.00 38.13      7
ATOM   16710  CA   GLU G  999      39.789 119.976  60.525  1.00 40.51      6
ATOM   16711  CB   GLU G  999      39.807 121.305  61.304  1.00 54.18      6
ATOM   16712  CG   GLU G  999      40.972 121.456  62.296  1.00 55.64      6
ATOM   16713  CD   GLU G  999      41.647 122.829  62.238  1.00 56.29      6
ATOM   16714  OE1  GLU G  999      40.940 123.858  62.316  1.00 55.80      8
ATOM   16715  OE2  GLU G  999      42.893 122.875  62.122  1.00 56.56      8
ATOM   16716  C    GLU G  999      38.395 119.355  60.607  1.00 40.73      6
ATOM   16717  O    GLU G  999      38.190 118.397  61.344  1.00 40.13      8
ATOM   16718  N    THR G1000      37.434 119.888  59.862  1.00 47.03      7
ATOM   16719  CA   THR G1000      36.092 119.338  59.933  1.00 48.94      6
ATOM   16720  CB   THR G1000      35.084 120.153  59.117  1.00 63.26      6
ATOM   16721  OG1  THR G1000      33.795 119.545  59.228  1.00 62.73      8
ATOM   16722  CG2  THR G1000      35.478 120.198  57.658  1.00 63.98      6
ATOM   16723  C    THR G1000      36.086 117.912  59.433  1.00 50.13      6
ATOM   16724  O    THR G1000      35.512 117.032  60.064  1.00 51.34      8
ATOM   16725  N    THR G1001      36.730 117.677  58.299  1.00 83.66      7
ATOM   16726  CA   THR G1001      36.792 116.334  57.745  1.00 84.47      6
ATOM   16727  CB   THR G1001      37.897 116.217  56.683  1.00 44.60      6
ATOM   16728  OG1  THR G1001      37.408 116.691  55.426  1.00 42.63      8
ATOM   16729  CG2  THR G1001      38.344 114.784  56.541  1.00 43.77      6
ATOM   16730  C    THR G1001      37.087 115.351  58.865  1.00 84.97      6
ATOM   16731  O    THR G1001      36.440 114.318  58.977  1.00 84.92      8
ATOM   16732  N    GLU G1002      38.058 115.694  59.702  1.00 47.50      7
ATOM   16733  CA   GLU G1002      38.449 114.839  60.804  1.00 48.08      6
ATOM   16734  CB   GLU G1002      39.798 115.294  61.377  1.00163.45      6
ATOM   16735  CG   GLU G1002      40.942 115.292  60.367  1.00168.56      6
```

299

```
ATOM   16736  CD  GLU G1002      42.287 115.640  60.990  1.00171.31      6
ATOM   16737  OE1 GLU G1002      42.788 114.848  61.815  1.00173.00      8
ATOM   16738  OE2 GLU G1002      42.844 116.707  60.657  1.00172.32      8
ATOM   16739  C   GLU G1002      37.411 114.791  61.918  1.00 47.16      6
ATOM   16740  O   GLU G1002      37.352 113.810  62.659  1.00 47.55      8
ATOM   16741  N   LYS G1003      36.587 115.831  62.028  1.00 68.69      7
ATOM   16742  CA  LYS G1003      35.569 115.906  63.079  1.00 68.11      6
ATOM   16743  CB  LYS G1003      35.285 117.370  63.426  1.00179.69      6
ATOM   16744  CG  LYS G1003      36.486 118.147  63.966  1.00183.17      6
ATOM   16745  CD  LYS G1003      36.860 117.745  65.392  1.00184.78      6
ATOM   16746  CE  LYS G1003      37.945 118.666  65.951  1.00186.16      6
ATOM   16747  NZ  LYS G1003      38.268 118.382  67.378  1.00185.20      7
ATOM   16748  C   LYS G1003      34.250 115.199  62.765  1.00 65.91      6
ATOM   16749  O   LYS G1003      33.421 115.024  63.649  1.00 67.12      8
ATOM   16750  N   VAL G1004      34.045 114.813  61.511  1.00 19.70      7
ATOM   16751  CA  VAL G1004      32.828 114.109  61.119  1.00 15.35      6
ATOM   16752  CB  VAL G1004      32.472 114.351  59.664  1.00 18.18      6
ATOM   16753  CG1 VAL G1004      31.065 113.884  59.414  1.00 17.86      6
ATOM   16754  CG2 VAL G1004      32.658 115.812  59.307  1.00 18.60      6
ATOM   16755  C   VAL G1004      33.135 112.631  61.263  1.00 13.87      6
ATOM   16756  O   VAL G1004      32.266 111.818  61.542  1.00 13.87      8
ATOM   16757  N   THR G1005      34.397 112.299  61.038  1.00 48.60      7
ATOM   16758  CA  THR G1005      34.888 110.946  61.165  1.00 48.72      6
ATOM   16759  CB  THR G1005      36.372 110.920  60.928  1.00 42.42      6
ATOM   16760  OG1 THR G1005      36.598 110.923  59.522  1.00 43.69      8
ATOM   16761  CG2 THR G1005      37.011 109.707  61.565  1.00 41.46      6
ATOM   16762  C   THR G1005      34.621 110.475  62.570  1.00 48.57      6
ATOM   16763  O   THR G1005      33.823 109.567  62.777  1.00 48.94      8
ATOM   16764  N   GLN G1006      35.302 111.099  63.532  1.00 45.99      7
ATOM   16765  CA  GLN G1006      35.140 110.770  64.945  1.00 44.76      6
ATOM   16766  CB  GLN G1006      35.882 111.788  65.811  1.00113.28      6
ATOM   16767  CG  GLN G1006      35.703 111.568  67.302  1.00117.54      6
ATOM   16768  CD  GLN G1006      36.327 112.673  68.126  1.00118.86      6
ATOM   16769  OE1 GLN G1006      35.954 113.840  68.000  1.00118.93      8
ATOM   16770  NE2 GLN G1006      37.281 112.312  68.979  1.00119.91      7
ATOM   16771  C   GLN G1006      33.652 110.787  65.283  1.00 42.67      6
ATOM   16772  O   GLN G1006      33.211 110.183  66.259  1.00 41.89      8
ATOM   16773  N   ALA G1007      32.888 111.504  64.470  1.00 24.56      7
ATOM   16774  CA  ALA G1007      31.459 111.584  64.648  1.00 22.84      6
ATOM   16775  CB  ALA G1007      30.897 112.756  63.873  1.00 67.16      6
ATOM   16776  C   ALA G1007      30.935 110.273  64.092  1.00 21.77      6
ATOM   16777  O   ALA G1007      30.696 109.342  64.841  1.00 20.96      8
ATOM   16778  N   VAL G1008      30.779 110.186  62.776  1.00 37.05      7
ATOM   16779  CA  VAL G1008      30.298 108.958  62.152  1.00 37.60      6
ATOM   16780  CB  VAL G1008      30.568 108.953  60.650  1.00 79.15      6
ATOM   16781  CG1 VAL G1008      32.016 109.333  60.381  1.00 80.90      6
ATOM   16782  CG2 VAL G1008      30.262 107.570  60.080  1.00 80.31      6
ATOM   16783  C   VAL G1008      30.970 107.717  62.725  1.00 36.09      6
ATOM   16784  O   VAL G1008      30.312 106.773  63.133  1.00 34.76      8
ATOM   16785  N   PHE G1009      32.292 107.722  62.757  1.00 25.63      7
ATOM   16786  CA  PHE G1009      33.005 106.572  63.260  1.00 26.46      6
ATOM   16787  CB  PHE G1009      34.500 106.663  62.956  1.00 26.89      6
ATOM   16788  CG  PHE G1009      35.133 105.329  62.848  1.00 24.42      6
ATOM   16789  CD1 PHE G1009      35.224 104.695  61.621  1.00 23.72      6
ATOM   16790  CD2 PHE G1009      35.467 104.619  63.989  1.00 23.78      6
ATOM   16791  CE1 PHE G1009      35.624 103.377  61.542  1.00 23.84      6
```

```
ATOM   16792  CE2 PHE G1009      35.867 103.306  63.918  1.00 23.61       6
ATOM   16793  CZ  PHE G1009      35.941 102.681  62.692  1.00 24.04       6
ATOM   16794  C   PHE G1009      32.820 106.352  64.746  1.00 28.58       6
ATOM   16795  O   PHE G1009      33.691 105.800  65.411  1.00 29.23       8
ATOM   16796  N   ASN G1010      31.684 106.765  65.280  1.00 24.41       7
ATOM   16797  CA  ASN G1010      31.458 106.597  66.700  1.00 27.31       6
ATOM   16798  CB  ASN G1010      32.334 107.593  67.473  1.00 65.80       6
ATOM   16799  CG  ASN G1010      31.555 108.438  68.456  1.00 70.69       6
ATOM   16800  OD1 ASN G1010      30.889 107.918  69.354  1.00 73.17       8
ATOM   16801  ND2 ASN G1010      31.651 109.757  68.304  1.00 74.01       7
ATOM   16802  C   ASN G1010      29.979 106.794  66.958  1.00 27.09       6
ATOM   16803  O   ASN G1010      29.509 106.675  68.083  1.00 26.98       8
ATOM   16804  N   ASN G1011      29.238 107.106  65.900  1.00 26.98       7
ATOM   16805  CA  ASN G1011      27.803 107.247  66.042  1.00 27.01       6
ATOM   16806  CB  ASN G1011      27.136 107.491  64.680  1.00 34.41       6
ATOM   16807  CG  ASN G1011      25.653 107.074  64.648  1.00 33.50       6
ATOM   16808  OD1 ASN G1011      24.993 106.962  65.684  1.00 31.38       8
ATOM   16809  ND2 ASN G1011      25.128 106.864  63.442  1.00 33.53       7
ATOM   16810  C   ASN G1011      27.474 105.861  66.525  1.00 28.16       6
ATOM   16811  O   ASN G1011      26.616 105.678  67.393  1.00 28.30       8
ATOM   16812  N   PHE G1012      28.211 104.891  65.974  1.00 25.48       7
ATOM   16813  CA  PHE G1012      28.006 103.499  66.303  1.00 26.89       6
ATOM   16814  CB  PHE G1012      28.574 102.599  65.194  1.00 76.72       6
ATOM   16815  CG  PHE G1012      30.077 102.540  65.133  1.00 81.65       6
ATOM   16816  CD1 PHE G1012      30.766 103.158  64.095  1.00 83.16       6
ATOM   16817  CD2 PHE G1012      30.803 101.786  66.065  1.00 84.27       6
ATOM   16818  CE1 PHE G1012      32.159 103.018  63.980  1.00 84.33       6
ATOM   16819  CE2 PHE G1012      32.194 101.639  65.964  1.00 84.69       6
ATOM   16820  CZ  PHE G1012      32.870 102.254  64.917  1.00 84.73       6
ATOM   16821  C   PHE G1012      28.531 103.098  67.669  1.00 26.09       6
ATOM   16822  O   PHE G1012      27.961 102.237  68.334  1.00 26.39       8
ATOM   16823  N   GLU G1013      29.596 103.734  68.122  1.00 20.55       7
ATOM   16824  CA  GLU G1013      30.133 103.379  69.423  1.00 21.05       6
ATOM   16825  CB  GLU G1013      31.290 104.297  69.808  1.00105.45       6
ATOM   16826  CG  GLU G1013      32.101 103.743  70.963  1.00109.34       6
ATOM   16827  CD  GLU G1013      33.209 104.666  71.415  1.00111.45       6
ATOM   16828  OE1 GLU G1013      32.896 105.751  71.954  1.00111.87       8
ATOM   16829  OE2 GLU G1013      34.394 104.309  71.232  1.00112.63       8
ATOM   16830  C   GLU G1013      29.067 103.429  70.507  1.00 19.55       6
ATOM   16831  O   GLU G1013      29.292 102.977  71.619  1.00 17.89       8
ATOM   16832  N   GLU G1014      27.898 103.967  70.198  1.00 34.82       7
ATOM   16833  CA  GLU G1014      26.849 104.039  71.206  1.00 36.24       6
ATOM   16834  CB  GLU G1014      26.915 105.378  71.939  1.00110.80       6
ATOM   16835  CG  GLU G1014      28.309 105.733  72.414  1.00114.48       6
ATOM   16836  CD  GLU G1014      28.320 106.961  73.279  1.00116.34       6
ATOM   16837  OE1 GLU G1014      27.643 107.945  72.914  1.00117.29       8
ATOM   16838  OE2 GLU G1014      29.012 106.946  74.319  1.00117.78       8
ATOM   16839  C   GLU G1014      25.481 103.852  70.577  1.00 35.21       6
ATOM   16840  O   GLU G1014      24.452 104.195  71.147  1.00 34.67       8
ATOM   16841  N   ASN G1015      25.491 103.299  69.382  1.00 57.07       7
ATOM   16842  CA  ASN G1015      24.283 103.023  68.638  1.00 57.18       6
ATOM   16843  CB  ASN G1015      23.740 104.286  67.977  1.00 73.29       6
ATOM   16844  CG  ASN G1015      23.239 105.297  68.976  1.00 74.70       6
ATOM   16845  OD1 ASN G1015      22.355 105.003  69.777  1.00 75.37       8
ATOM   16846  ND2 ASN G1015      23.796 106.502  68.933  1.00 75.87       7
ATOM   16847  C   ASN G1015      24.825 102.113  67.582  1.00 56.29       6
```

```
ATOM   16848  O    ASN G1015        25.439 102.595  66.635  1.00 56.98      8
ATOM   16849  N    TYR G1016        24.638 100.808  67.759  1.00 24.66      7
ATOM   16850  CA   TYR G1016        25.120  99.813  66.812  1.00 22.45      6
ATOM   16851  CB   TYR G1016        25.221 100.412  65.409  1.00 21.71      6
ATOM   16852  CG   TYR G1016        24.070 101.305  65.057  1.00 19.54      6
ATOM   16853  CD1  TYR G1016        22.787 100.970  65.437  1.00 19.92      6
ATOM   16854  CE1  TYR G1016        21.715 101.769  65.119  1.00 20.03      6
ATOM   16855  CD2  TYR G1016        24.259 102.483  64.344  1.00 18.54      6
ATOM   16856  CE2  TYR G1016        23.189 103.293  64.015  1.00 19.28      6
ATOM   16857  CZ   TYR G1016        21.915 102.919  64.404  1.00 19.67      6
ATOM   16858  OH   TYR G1016        20.798 103.626  64.029  1.00 20.78      8
ATOM   16859  C    TYR G1016        26.479  99.227  67.194  1.00 23.39      6
ATOM   16860  O    TYR G1016        27.407  99.248  66.385  1.00 22.77      8
ATOM   16861  N    PRO G1017        26.624  98.695  68.426  1.00 56.70      7
ATOM   16862  CD   PRO G1017        25.624  98.598  69.501  1.00 33.23      6
ATOM   16863  CA   PRO G1017        27.898  98.106  68.859  1.00 57.58      6
ATOM   16864  CB   PRO G1017        27.646  97.786  70.330  1.00 32.92      6
ATOM   16865  CG   PRO G1017        26.187  97.488  70.353  1.00 33.40      6
ATOM   16866  C    PRO G1017        28.274  96.863  68.022  1.00 58.06      6
ATOM   16867  O    PRO G1017        29.357  96.293  68.175  1.00 56.67      8
ATOM   16868  N    PHE G1018        27.352  96.449  67.155  1.00 32.01      7
ATOM   16869  CA   PHE G1018        27.564  95.337  66.240  1.00 32.64      6
ATOM   16870  CB   PHE G1018        26.736  94.116  66.605  1.00 27.34      6
ATOM   16871  CG   PHE G1018        27.030  93.555  67.935  1.00 24.96      6
ATOM   16872  CD1  PHE G1018        26.578  94.183  69.078  1.00 23.88      6
ATOM   16873  CD2  PHE G1018        27.739  92.373  68.052  1.00 24.97      6
ATOM   16874  CE1  PHE G1018        26.826  93.640  70.335  1.00 24.18      6
ATOM   16875  CE2  PHE G1018        27.995  91.820  69.295  1.00 25.84      6
ATOM   16876  CZ   PHE G1018        27.535  92.455  70.446  1.00 25.55      6
ATOM   16877  C    PHE G1018        27.030  95.832  64.915  1.00 34.98      6
ATOM   16878  O    PHE G1018        27.758  95.999  63.936  1.00 33.54      8
ATOM   16879  N    ASN G1019        25.722  96.057  64.929  1.00207.79      7
ATOM   16880  CA   ASN G1019        24.963  96.515  63.783  1.00208.87      6
ATOM   16881  CB   ASN G1019        24.022  97.629  64.201  1.00141.66      6
ATOM   16882  CG   ASN G1019        22.795  97.093  64.864  1.00145.22      6
ATOM   16883  OD1  ASN G1019        22.058  96.318  64.259  1.00145.63      8
ATOM   16884  ND2  ASN G1019        22.569  97.478  66.112  1.00147.27      7
ATOM   16885  C    ASN G1019        25.757  96.928  62.575  1.00208.87      6
ATOM   16886  O    ASN G1019        25.538  96.396  61.485  1.00208.87      8
ATOM   16887  N    PRO G1020        26.678  97.889  62.723  1.00 35.68      7
ATOM   16888  CD   PRO G1020        27.066  98.923  63.688  1.00157.45      6
ATOM   16889  CA   PRO G1020        27.318  98.114  61.441  1.00 34.69      6
ATOM   16890  CB   PRO G1020        28.161  99.357  61.684  1.00156.72      6
ATOM   16891  CG   PRO G1020        27.417 100.069  62.773  1.00158.71      6
ATOM   16892  C    PRO G1020        28.137  96.863  61.226  1.00 32.82      6
ATOM   16893  O    PRO G1020        29.106  96.604  61.932  1.00 31.89      8
ATOM   16894  N    LEU G1021        27.704  96.051  60.281  1.00 42.00      7
ATOM   16895  CA   LEU G1021        28.432  94.858  60.000  1.00 41.98      6
ATOM   16896  CB   LEU G1021        27.552  93.915  59.200  1.00 99.92      6
ATOM   16897  CG   LEU G1021        26.277  93.613  60.004  1.00103.21      6
ATOM   16898  CD1  LEU G1021        25.310  92.740  59.213  1.00104.59      6
ATOM   16899  CD2  LEU G1021        26.671  92.936  61.317  1.00103.00      6
ATOM   16900  C    LEU G1021        29.620  95.388  59.222  1.00 41.58      6
ATOM   16901  O    LEU G1021        30.272  94.671  58.456  1.00 42.23      8
ATOM   16902  N    ALA G1022        29.874  96.680  59.449  1.00 52.95      7
ATOM   16903  CA   ALA G1022        30.979  97.435  58.867  1.00 50.22      6
```

302

```
ATOM   16904  CB   ALA G1022      30.462  98.571  57.940  1.00 13.87      6
ATOM   16905  C    ALA G1022      31.759  98.022  60.043  1.00 49.94      6
ATOM   16906  O    ALA G1022      32.563  98.930  59.858  1.00 52.39      8
ATOM   16907  N    VAL G1023      31.517  97.504  61.251  1.00 42.90      7
ATOM   16908  CA   VAL G1023      32.216  97.986  62.449  1.00 40.86      6
ATOM   16909  CB   VAL G1023      31.247  98.611  63.494  1.00 13.87      6
ATOM   16910  CG1  VAL G1023      31.973  98.885  64.810  1.00 13.87      6
ATOM   16911  CG2  VAL G1023      30.732  99.904  62.986  1.00 13.87      6
ATOM   16912  C    VAL G1023      33.060  96.936  63.160  1.00 40.24      6
ATOM   16913  O    VAL G1023      34.204  97.219  63.503  1.00 39.61      8
ATOM   16914  N    MET G1024      32.518  95.743  63.399  1.00 35.27      7
ATOM   16915  CA   MET G1024      33.297  94.701  64.072  1.00 36.89      6
ATOM   16916  CB   MET G1024      32.588  93.348  64.009  1.00 70.11      6
ATOM   16917  CG   MET G1024      31.097  93.437  63.892  1.00 76.08      6
ATOM   16918  SD   MET G1024      30.439  94.780  64.866  1.00 82.04     16
ATOM   16919  CE   MET G1024      30.639  94.123  66.544  1.00 82.88      6
ATOM   16920  C    MET G1024      34.608  94.603  63.309  1.00 37.14      6
ATOM   16921  O    MET G1024      35.690  94.445  63.887  1.00 36.34      8
ATOM   16922  N    ALA G1025      34.479  94.689  61.989  1.00 64.65      7
ATOM   16923  CA   ALA G1025      35.616  94.657  61.096  1.00 62.51      6
ATOM   16924  CB   ALA G1025      35.148  94.774  59.661  1.00 22.04      6
ATOM   16925  C    ALA G1025      36.420  95.876  61.480  1.00 61.26      6
ATOM   16926  O    ALA G1025      37.446  95.774  62.147  1.00 61.20      8
ATOM   16927  N    ALA G1026      35.914  97.035  61.072  1.00 34.88      7
ATOM   16928  CA   ALA G1026      36.547  98.317  61.363  1.00 32.65      6
ATOM   16929  CB   ALA G1026      35.501  99.429  61.319  1.00 75.61      6
ATOM   16930  C    ALA G1026      37.247  98.313  62.714  1.00 30.71      6
ATOM   16931  O    ALA G1026      38.432  98.614  62.803  1.00 28.71      8
ATOM   16932  N    SER G1027      36.509  97.961  63.760  1.00 22.46      7
ATOM   16933  CA   SER G1027      37.064  97.937  65.103  1.00 22.87      6
ATOM   16934  CB   SER G1027      35.969  98.095  66.162  1.00 29.31      6
ATOM   16935  OG   SER G1027      35.643  99.462  66.383  1.00 32.08      8
ATOM   16936  C    SER G1027      37.869  96.701  65.436  1.00 22.83      6
ATOM   16937  O    SER G1027      37.844  96.251  66.577  1.00 22.96      8
ATOM   16938  N    GLY G1028      38.592  96.154  64.466  1.00 23.58      7
ATOM   16939  CA   GLY G1028      39.384  94.976  64.759  1.00 23.25      6
ATOM   16940  C    GLY G1028      38.840  93.702  64.152  1.00 23.22      6
ATOM   16941  O    GLY G1028      37.960  93.049  64.724  1.00 22.96      8
ATOM   16942  N    ALA G1029      39.388  93.362  62.984  1.00 43.48      7
ATOM   16943  CA   ALA G1029      39.008  92.182  62.203  1.00 42.94      6
ATOM   16944  CB   ALA G1029      37.492  92.038  62.162  1.00114.37      6
ATOM   16945  C    ALA G1029      39.560  92.324  60.782  1.00 41.27      6
ATOM   16946  O    ALA G1029      40.702  91.963  60.535  1.00 40.25      8
ATOM   16947  N    ALA G1030      38.743  92.851  59.864  1.00 18.27      7
ATOM   16948  CA   ALA G1030      39.154  93.059  58.471  1.00 17.47      6
ATOM   16949  CB   ALA G1030      38.833  91.817  57.668  1.00 13.87      6
ATOM   16950  C    ALA G1030      38.603  94.313  57.744  1.00 16.81      6
ATOM   16951  O    ALA G1030      38.171  94.216  56.602  1.00 14.21      8
ATOM   16952  N    GLY G1031      38.650  95.476  58.399  1.00 24.11      7
ATOM   16953  CA   GLY G1031      38.181  96.730  57.809  1.00 27.61      6
ATOM   16954  C    GLY G1031      39.156  97.870  58.097  1.00 28.66      6
ATOM   16955  O    GLY G1031      40.355  97.632  58.049  1.00 29.08      8
ATOM   16956  N    ASN G1032      38.671  99.086  58.394  1.00 31.32      7
ATOM   16957  CA   ASN G1032      39.537 100.253  58.714  1.00 32.32      6
ATOM   16958  CB   ASN G1032      40.711 100.293  57.742  1.00 40.11      6
ATOM   16959  CG   ASN G1032      40.749 101.546  56.925  1.00 41.52      6
```

```
ATOM  16960  OD1 ASN G1032    40.997 102.629  57.457  1.00  40.09    8
ATOM  16961  ND2 ASN G1032    40.507 101.415  55.615  1.00  41.76    7
ATOM  16962  C   ASN G1032    38.786 101.605  58.710  1.00  33.63    6
ATOM  16963  O   ASN G1032    37.928 101.827  57.860  1.00  33.89    8
ATOM  16964  N   PRO G1033    39.123 102.534  59.643  1.00  61.40    7
ATOM  16965  CD  PRO G1033    40.242 102.397  60.588  1.00  25.12    6
ATOM  16966  CA  PRO G1033    38.518 103.868  59.813  1.00  62.26    6
ATOM  16967  CB  PRO G1033    39.091 104.346  61.132  1.00  24.15    6
ATOM  16968  CG  PRO G1033    40.444 103.860  61.051  1.00  23.45    6
ATOM  16969  C   PRO G1033    38.693 104.930  58.758  1.00  64.25    6
ATOM  16970  O   PRO G1033    37.806 105.752  58.575  1.00  66.07    8
ATOM  16971  N   GLN G1034    39.836 104.965  58.093  1.00  53.14    7
ATOM  16972  CA  GLN G1034    40.013 105.982  57.065  1.00  54.20    6
ATOM  16973  CB  GLN G1034    41.437 105.968  56.514  1.00  98.46    6
ATOM  16974  CG  GLN G1034    41.839 104.665  55.872  1.00 102.25    6
ATOM  16975  CD  GLN G1034    42.929 104.849  54.848  1.00 104.72    6
ATOM  16976  OE1 GLN G1034    43.940 105.501  55.118  1.00 107.00    8
ATOM  16977  NE2 GLN G1034    42.736 104.274  53.660  1.00 105.14    7
ATOM  16978  C   GLN G1034    39.019 105.712  55.939  1.00  52.80    6
ATOM  16979  O   GLN G1034    38.436 106.628  55.359  1.00  53.41    8
ATOM  16980  N   GLN G1035    38.822 104.436  55.641  1.00  28.01    7
ATOM  16981  CA  GLN G1035    37.901 104.042  54.597  1.00  27.34    6
ATOM  16982  CB  GLN G1035    38.143 102.572  54.233  1.00  35.98    6
ATOM  16983  CG  GLN G1035    37.566 102.180  52.894  1.00  35.91    6
ATOM  16984  CD  GLN G1035    37.959 103.140  51.789  1.00  34.17    6
ATOM  16985  OE1 GLN G1035    38.958 102.944  51.100  1.00  34.61    8
ATOM  16986  NE2 GLN G1035    37.169 104.188  51.615  1.00  32.73    7
ATOM  16987  C   GLN G1035    36.471 104.291  55.096  1.00  27.53    6
ATOM  16988  O   GLN G1035    35.692 104.960  54.419  1.00  27.23    8
ATOM  16989  N   ILE G1036    36.139 103.771  56.283  1.00  38.83    7
ATOM  16990  CA  ILE G1036    34.817 103.973  56.893  1.00  38.39    6
ATOM  16991  CB  ILE G1036    34.842 103.670  58.403  1.00  29.15    6
ATOM  16992  CG2 ILE G1036    33.456 103.848  58.996  1.00  29.71    6
ATOM  16993  CG1 ILE G1036    35.325 102.245  58.645  1.00  29.83    6
ATOM  16994  CD1 ILE G1036    34.278 101.197  58.439  1.00  33.08    6
ATOM  16995  C   ILE G1036    34.383 105.434  56.751  1.00  38.77    6
ATOM  16996  O   ILE G1036    33.326 105.728  56.194  1.00  38.44    8
ATOM  16997  N   ARG G1037    35.210 106.340  57.271  1.00  61.86    7
ATOM  16998  CA  ARG G1037    34.957 107.785  57.226  1.00  63.48    6
ATOM  16999  CB  ARG G1037    36.123 108.546  57.847  1.00  66.49    6
ATOM  17000  CG  ARG G1037    37.317 108.654  56.912  1.00  68.48    6
ATOM  17001  CD  ARG G1037    38.584 109.003  57.648  1.00  71.23    6
ATOM  17002  NE  ARG G1037    38.994 110.384  57.433  1.00  73.35    7
ATOM  17003  CZ  ARG G1037    40.004 110.959  58.079  1.00  74.16    6
ATOM  17004  NH1 ARG G1037    40.697 110.264  58.976  1.00  75.40    7
ATOM  17005  NH2 ARG G1037    40.322 112.224  57.839  1.00  73.81    7
ATOM  17006  C   ARG G1037    34.840 108.248  55.796  1.00  63.18    6
ATOM  17007  O   ARG G1037    34.764 109.441  55.526  1.00  64.48    8
ATOM  17008  N   GLN G1038    34.863 107.294  54.882  1.00  29.30    7
ATOM  17009  CA  GLN G1038    34.799 107.590  53.473  1.00  28.59    6
ATOM  17010  CB  GLN G1038    36.084 107.065  52.829  1.00  33.94    6
ATOM  17011  CG  GLN G1038    36.224 107.363  51.368  1.00  33.57    6
ATOM  17012  CD  GLN G1038    37.659 107.287  50.912  1.00  32.47    6
ATOM  17013  OE1 GLN G1038    38.505 108.037  51.389  1.00  30.02    8
ATOM  17014  NE2 GLN G1038    37.943 106.377  49.980  1.00  31.63    7
ATOM  17015  C   GLN G1038    33.541 106.963  52.868  1.00  28.87    6
```

304

```
ATOM    17016  O    GLN  G1038     33.153 107.267  51.737  1.00  28.39      8
ATOM    17017  N    LEU  G1039     32.899 106.103  53.654  1.00  70.71      7
ATOM    17018  CA   LEU  G1039     31.682 105.415  53.242  1.00  70.80      6
ATOM    17019  CB   LEU  G1039     31.738 103.936  53.676  1.00  42.09      6
ATOM    17020  CG   LEU  G1039     32.453 102.888  52.796  1.00  40.18      6
ATOM    17021  CD1  LEU  G1039     33.221 101.911  53.676  1.00  39.29      6
ATOM    17022  CD2  LEU  G1039     31.435 102.134  51.934  1.00  39.21      6
ATOM    17023  C    LEU  G1039     30.432 106.092  53.816  1.00  71.42      6
ATOM    17024  O    LEU  G1039     29.384 106.097  53.173  1.00  71.93      8
ATOM    17025  N    CYS  G1040     30.540 106.663  55.016  1.00  65.44      7
ATOM    17026  CA   CYS  G1040     29.409 107.348  55.661  1.00  64.85      6
ATOM    17027  CB   CYS  G1040     29.094 106.700  57.000  1.00  59.35      6
ATOM    17028  SG   CYS  G1040     29.747 105.049  57.133  1.00  61.15     16
ATOM    17029  C    CYS  G1040     29.771 108.804  55.904  1.00  63.95      6
ATOM    17030  O    CYS  G1040     29.198 109.726  55.313  1.00  65.31      8
ATOM    17031  N    GLY  G1041     30.714 109.005  56.809  1.00  55.48      7
ATOM    17032  CA   GLY  G1041     31.161 110.350  57.080  1.00  53.62      6
ATOM    17033  C    GLY  G1041     31.934 110.727  55.838  1.00  52.73      6
ATOM    17034  O    GLY  G1041     32.603 109.885  55.239  1.00  53.70      8
ATOM    17035  N    MET  G1042     31.836 111.989  55.449  1.00  25.63      7
ATOM    17036  CA   MET  G1042     32.502 112.496  54.260  1.00  24.49      6
ATOM    17037  CB   MET  G1042     32.111 113.972  54.092  1.00  25.46      6
ATOM    17038  CG   MET  G1042     33.240 114.928  53.742  1.00  22.44      6
ATOM    17039  SD   MET  G1042     34.025 115.738  55.131  1.00  19.24     16
ATOM    17040  CE   MET  G1042     33.215 117.284  55.029  1.00  19.20      6
ATOM    17041  C    MET  G1042     34.022 112.331  54.205  1.00  25.73      6
ATOM    17042  O    MET  G1042     34.685 112.203  55.222  1.00  25.57      8
ATOM    17043  N    ARG  G1043     34.547 112.292  52.988  1.00  44.89      7
ATOM    17044  CA   ARG  G1043     35.986 112.233  52.715  1.00  48.27      6
ATOM    17045  CB   ARG  G1043     36.429 110.873  52.194  1.00  65.34      6
ATOM    17046  CG   ARG  G1043     35.770 110.465  50.882  1.00  65.04      6
ATOM    17047  CD   ARG  G1043     36.784 110.183  49.795  1.00  65.29      6
ATOM    17048  NE   ARG  G1043     36.243 109.239  48.826  1.00  65.65      7
ATOM    17049  CZ   ARG  G1043     36.953 108.677  47.853  1.00  66.26      6
ATOM    17050  NH1  ARG  G1043     38.240 108.963  47.702  1.00  65.82      7
ATOM    17051  NH2  ARG  G1043     36.378 107.801  47.045  1.00  66.87      7
ATOM    17052  C    ARG  G1043     35.984 113.219  51.571  1.00  50.08      6
ATOM    17053  O    ARG  G1043     35.203 113.066  50.631  1.00  51.17      8
ATOM    17054  N    GLY  G1044     36.813 114.248  51.627  1.00  57.92      7
ATOM    17055  CA   GLY  G1044     36.731 115.192  50.540  1.00  59.57      6
ATOM    17056  C    GLY  G1044     37.839 116.174  50.308  1.00  60.51      6
ATOM    17057  O    GLY  G1044     37.808 116.869  49.296  1.00  61.34      8
ATOM    17058  N    LEU  G1045     38.819 116.262  51.195  1.00  60.85      7
ATOM    17059  CA   LEU  G1045     39.858 117.237  50.919  1.00  62.64      6
ATOM    17060  CB   LEU  G1045     40.575 117.677  52.196  1.00  38.16      6
ATOM    17061  CG   LEU  G1045     41.209 119.044  51.893  1.00  35.37      6
ATOM    17062  CD1  LEU  G1045     40.087 120.046  51.575  1.00  34.03      6
ATOM    17063  CD2  LEU  G1045     42.068 119.514  53.049  1.00  33.75      6
ATOM    17064  C    LEU  G1045     40.865 116.725  49.888  1.00  64.76      6
ATOM    17065  O    LEU  G1045     42.082 116.753  50.101  1.00  65.26      8
ATOM    17066  N    MET  G1046     40.341 116.270  48.757  1.00  37.70      7
ATOM    17067  CA   MET  G1046     41.166 115.757  47.684  1.00  40.48      6
ATOM    17068  CB   MET  G1046     40.310 115.557  46.434  1.00  46.68      6
ATOM    17069  CG   MET  G1046     40.245 114.123  45.958  1.00  46.40      6
ATOM    17070  SD   MET  G1046     39.655 113.048  47.262  1.00  45.03     16
ATOM    17071  CE   MET  G1046     41.205 112.756  48.251  1.00  44.35      6
```

305

```
ATOM   17072   C    MET G1046    42.307 116.716  47.383  1.00  43.07   6
ATOM   17073   O    MET G1046    42.280 117.873  47.802  1.00  43.33   8
ATOM   17074   N    GLN G1047    43.312 116.229  46.661  1.00104.69   7
ATOM   17075   CA   GLN G1047    44.458 117.050  46.286  1.00107.40   6
ATOM   17076   CB   GLN G1047    45.727 116.557  46.986  1.00148.76   6
ATOM   17077   CG   GLN G1047    46.083 115.113  46.697  1.00151.67   6
ATOM   17078   CD   GLN G1047    47.175 114.602  47.614  1.00152.97   6
ATOM   17079   OE1  GLN G1047    47.557 113.432  47.555  1.00153.66   8
ATOM   17080   NE2  GLN G1047    47.681 115.480  48.474  1.00152.49   7
ATOM   17081   C    GLN G1047    44.646 117.011  44.777  1.00107.91   6
ATOM   17082   O    GLN G1047    44.316 116.020  44.130  1.00107.82   8
ATOM   17083   N    LYS G1048    45.162 118.100  44.219  1.00  73.19   7
ATOM   17084   CA   LYS G1048    45.385 118.180  42.787  1.00  74.01   6
ATOM   17085   CB   LYS G1048    45.861 119.584  42.398  1.00114.73   6
ATOM   17086   CG   LYS G1048    44.784 120.651  42.584  1.00116.62   6
ATOM   17087   CD   LYS G1048    45.227 122.030  42.112  1.00118.68   6
ATOM   17088   CE   LYS G1048    44.177 123.084  42.454  1.00119.59   6
ATOM   17089   NZ   LYS G1048    44.545 124.449  41.991  1.00120.42   7
ATOM   17090   C    LYS G1048    46.401 117.129  42.398  1.00  73.88   6
ATOM   17091   O    LYS G1048    46.961 116.459  43.261  1.00  74.48   8
ATOM   17092   N    PRO G1049    46.636 116.947  41.093  1.00  68.45   7
ATOM   17093   CD   PRO G1049    46.020 117.628  39.942  1.00  55.63   6
ATOM   17094   CA   PRO G1049    47.604 115.948  40.646  1.00  68.78   6
ATOM   17095   CB   PRO G1049    47.338 115.873  39.154  1.00  55.58   6
ATOM   17096   CG   PRO G1049    46.963 117.285  38.828  1.00  55.59   6
ATOM   17097   C    PRO G1049    49.035 116.363  40.969  1.00  69.61   6
ATOM   17098   O    PRO G1049    49.964 115.578  40.804  1.00  70.14   8
ATOM   17099   N    SER G1050    49.197 117.598  41.438  1.00  81.57   7
ATOM   17100   CA   SER G1050    50.509 118.144  41.801  1.00  81.32   6
ATOM   17101   CB   SER G1050    50.787 119.411  41.003  1.00  56.87   6
ATOM   17102   OG   SER G1050    50.046 120.494  41.536  1.00  57.14   8
ATOM   17103   C    SER G1050    50.557 118.499  43.290  1.00  81.18   6
ATOM   17104   O    SER G1050    51.218 119.463  43.690  1.00  81.10   8
ATOM   17105   N    GLY G1051    49.847 117.720  44.102  1.00113.08   7
ATOM   17106   CA   GLY G1051    49.803 117.973  45.531  1.00111.73   6
ATOM   17107   C    GLY G1051    49.364 119.396  45.797  1.00110.65   6
ATOM   17108   O    GLY G1051    50.143 120.205  46.288  1.00111.24   8
ATOM   17109   N    ALA G1052    48.115 119.708  45.478  1.00  76.20   7
ATOM   17110   CA   ALA G1052    47.627 121.061  45.681  1.00  74.93   6
ATOM   17111   CB   ALA G1052    47.662 121.815  44.344  1.00  62.62   6
ATOM   17112   C    ALA G1052    46.227 121.142  46.305  1.00  74.29   6
ATOM   17113   O    ALA G1052    45.475 122.087  46.033  1.00  75.40   8
ATOM   17114   N    THR G1053    45.897 120.164  47.152  1.00  31.97   7
ATOM   17115   CA   THR G1053    44.591 120.091  47.818  1.00  30.20   6
ATOM   17116   CB   THR G1053    44.689 120.463  49.292  1.00  50.31   6
ATOM   17117   OG1  THR G1053    45.958 121.082  49.535  1.00  52.45   8
ATOM   17118   CG2  THR G1053    44.521 119.226  50.167  1.00  51.29   6
ATOM   17119   C    THR G1053    43.550 120.997  47.205  1.00  28.15   6
ATOM   17120   O    THR G1053    43.569 122.199  47.436  1.00  26.84   8
ATOM   17121   N    PHE G1054    42.647 120.433  46.416  1.00  59.95   7
ATOM   17122   CA   PHE G1054    41.624 121.257  45.812  1.00  60.48   6
ATOM   17123   CB   PHE G1054    40.641 120.410  45.025  1.00  66.54   6
ATOM   17124   CG   PHE G1054    41.227 119.790  43.796  1.00  67.65   6
ATOM   17125   CD1  PHE G1054    41.975 118.622  43.877  1.00  67.50   6
ATOM   17126   CD2  PHE G1054    41.010 120.363  42.547  1.00  67.81   6
ATOM   17127   CE1  PHE G1054    42.491 118.033  42.733  1.00  67.85   6
```

306

```
ATOM   17128  CE2 PHE G1054      41.527 119.780  41.395  1.00 67.89      6
ATOM   17129  CZ  PHE G1054      42.267 118.613  41.489  1.00 68.40      6
ATOM   17130  C   PHE G1054      40.896 122.008  46.918  1.00 60.72      6
ATOM   17131  O   PHE G1054      40.551 121.426  47.956  1.00 60.81      8
ATOM   17132  N   GLU G1055      40.673 123.301  46.680  1.00 49.92      7
ATOM   17133  CA  GLU G1055      40.016 124.199  47.623  1.00 48.19      6
ATOM   17134  CB  GLU G1055      40.000 125.604  47.024  1.00 56.84      6
ATOM   17135  CG  GLU G1055      39.805 126.741  48.014  1.00 58.12      6
ATOM   17136  CD  GLU G1055      40.276 128.083  47.457  1.00 59.13      6
ATOM   17137  OE1 GLU G1055      40.417 128.200  46.222  1.00 60.11      8
ATOM   17138  OE2 GLU G1055      40.500 129.026  48.248  1.00 60.04      8
ATOM   17139  C   GLU G1055      38.604 123.749  48.021  1.00 47.22      6
ATOM   17140  O   GLU G1055      38.124 124.124  49.085  1.00 47.12      8
ATOM   17141  N   VAL G1056      37.945 122.949  47.179  1.00 74.64      7
ATOM   17142  CA  VAL G1056      36.602 122.429  47.488  1.00 73.07      6
ATOM   17143  CB  VAL G1056      35.619 122.590  46.298  1.00 56.31      6
ATOM   17144  CG1 VAL G1056      34.610 121.454  46.288  1.00 54.51      6
ATOM   17145  CG2 VAL G1056      34.867 123.906  46.420  1.00 55.73      6
ATOM   17146  C   VAL G1056      36.670 120.944  47.844  1.00 72.41      6
ATOM   17147  O   VAL G1056      36.977 120.110  46.993  1.00 73.70      8
ATOM   17148  N   PRO G1057      36.370 120.593  49.107  1.00 23.65      7
ATOM   17149  CD  PRO G1057      35.806 121.415  50.190  1.00 61.10      6
ATOM   17150  CA  PRO G1057      36.418 119.194  49.519  1.00 22.52      6
ATOM   17151  CB  PRO G1057      36.225 119.283  51.026  1.00 59.37      6
ATOM   17152  CG  PRO G1057      35.239 120.362  51.133  1.00 59.92      6
ATOM   17153  C   PRO G1057      35.294 118.449  48.828  1.00 22.39      6
ATOM   17154  O   PRO G1057      34.716 118.960  47.862  1.00 22.06      8
ATOM   17155  N   VAL G1058      34.977 117.252  49.317  1.00 25.40      7
ATOM   17156  CA  VAL G1058      33.906 116.486  48.712  1.00 26.34      6
ATOM   17157  CB  VAL G1058      34.467 115.197  48.079  1.00 27.11      6
ATOM   17158  CG1 VAL G1058      33.622 114.822  46.877  1.00 29.20      6
ATOM   17159  CG2 VAL G1058      35.895 115.397  47.651  1.00 26.42      6
ATOM   17160  C   VAL G1058      32.747 116.126  49.664  1.00 27.04      6
ATOM   17161  O   VAL G1058      32.899 116.099  50.876  1.00 26.43      8
ATOM   17162  N   ALA G1059      31.574 115.884  49.097  1.00 71.48      7
ATOM   17163  CA  ALA G1059      30.418 115.473  49.883  1.00 73.02      6
ATOM   17164  CB  ALA G1059      29.192 116.248  49.456  1.00172.76      6
ATOM   17165  C   ALA G1059      30.288 114.000  49.497  1.00 72.38      6
ATOM   17166  O   ALA G1059      29.463 113.621  48.646  1.00 71.49      8
ATOM   17167  N   SER G1060      31.120 113.174  50.126  1.00 42.81      7
ATOM   17168  CA  SER G1060      31.166 111.757  49.803  1.00 43.34      6
ATOM   17169  CB  SER G1060      32.612 111.249  49.901  1.00151.82      6
ATOM   17170  OG  SER G1060      33.485 111.929  49.012  1.00154.10      8
ATOM   17171  C   SER G1060      30.287 110.829  50.607  1.00 42.52      6
ATOM   17172  O   SER G1060      30.751 109.771  51.024  1.00 42.80      8
ATOM   17173  N   SER G1061      29.028 111.182  50.832  1.00 64.02      7
ATOM   17174  CA  SER G1061      28.185 110.274  51.598  1.00 64.44      6
ATOM   17175  CB  SER G1061      26.691 110.505  51.300  1.00 46.66      6
ATOM   17176  OG  SER G1061      26.195 111.687  51.908  1.00 45.87      8
ATOM   17177  C   SER G1061      28.603 108.862  51.166  1.00 65.14      6
ATOM   17178  O   SER G1061      28.620 107.944  51.985  1.00 65.32      8
ATOM   17179  N   PHE G1062      28.995 108.730  49.889  1.00 52.12      7
ATOM   17180  CA  PHE G1062      29.416 107.464  49.269  1.00 50.54      6
ATOM   17181  CB  PHE G1062      30.623 106.862  49.999  1.00 42.33      6
ATOM   17182  CG  PHE G1062      31.762 106.469  49.080  1.00 41.07      6
ATOM   17183  CD1 PHE G1062      31.922 107.078  47.837  1.00 40.91      6
```

307

```
ATOM   17184  CD2 PHE G1062      32.718 105.546  49.489  1.00 39.80      6
ATOM   17185  CE1 PHE G1062      33.016 106.775  47.027  1.00 39.89      6
ATOM   17186  CE2 PHE G1062      33.812 105.241  48.684  1.00 39.22      6
ATOM   17187  CZ  PHE G1062      33.961 105.855  47.458  1.00 39.25      6
ATOM   17188  C   PHE G1062      28.218 106.556  49.387  1.00 50.10      6
ATOM   17189  O   PHE G1062      27.690 106.061  48.392  1.00 48.76      8
ATOM   17190  N   ARG G1063      27.803 106.363  50.635  1.00 40.59      7
ATOM   17191  CA  ARG G1063      26.641 105.582  50.981  1.00 41.65      6
ATOM   17192  CB  ARG G1063      26.299 105.801  52.454  1.00 46.91      6
ATOM   17193  CG  ARG G1063      24.934 105.285  52.863  1.00 46.03      6
ATOM   17194  CD  ARG G1063      23.829 106.224  52.409  1.00 44.48      6
ATOM   17195  NE  ARG G1063      22.511 105.768  52.826  1.00 42.65      7
ATOM   17196  CZ  ARG G1063      22.218 105.351  54.056  1.00 42.52      6
ATOM   17197  NH1 ARG G1063      23.158 105.326  54.993  1.00 40.99      7
ATOM   17198  NH2 ARG G1063      20.975 104.979  54.361  1.00 42.77      7
ATOM   17199  C   ARG G1063      25.568 106.153  50.089  1.00 42.82      6
ATOM   17200  O   ARG G1063      24.900 105.440  49.359  1.00 42.84      8
ATOM   17201  N   GLU G1064      25.395 107.458  50.155  1.00 54.47      7
ATOM   17202  CA  GLU G1064      24.426 108.079  49.293  1.00 57.79      6
ATOM   17203  CB  GLU G1064      23.579 109.118  50.042  1.00122.75      6
ATOM   17204  CG  GLU G1064      22.207 108.588  50.488  1.00123.96      6
ATOM   17205  CD  GLU G1064      21.188 109.692  50.762  1.00124.45      6
ATOM   17206  OE1 GLU G1064      20.889 110.479  49.834  1.00123.97      8
ATOM   17207  OE2 GLU G1064      20.681 109.766  51.904  1.00124.30      8
ATOM   17208  C   GLU G1064      25.221 108.727  48.184  1.00 58.91      6
ATOM   17209  O   GLU G1064      25.444 109.925  48.186  1.00 59.88      8
ATOM   17210  N   GLY G1065      25.678 107.899  47.256  1.00134.40      7
ATOM   17211  CA  GLY G1065      26.430 108.376  46.112  1.00135.02      6
ATOM   17212  C   GLY G1065      27.599 109.307  46.334  1.00134.71      6
ATOM   17213  O   GLY G1065      27.993 109.606  47.461  1.00135.65      8
ATOM   17214  N   LEU G1066      28.155 109.753  45.214  1.00 16.41      7
ATOM   17215  CA  LEU G1066      29.276 110.665  45.187  1.00 14.33      6
ATOM   17216  CB  LEU G1066      30.582 109.911  45.043  1.00 16.81      6
ATOM   17217  CG  LEU G1066      31.847 110.745  45.107  1.00 13.87      6
ATOM   17218  CD1 LEU G1066      31.761 111.586  46.317  1.00 13.87      6
ATOM   17219  CD2 LEU G1066      33.064 109.868  45.196  1.00 13.87      6
ATOM   17220  C   LEU G1066      28.988 111.375  43.920  1.00 15.38      6
ATOM   17221  O   LEU G1066      29.885 111.650  43.142  1.00 15.39      8
ATOM   17222  N   THR G1067      27.698 111.622  43.709  1.00 87.90      7
ATOM   17223  CA  THR G1067      27.183 112.308  42.528  1.00 90.97      6
ATOM   17224  CB  THR G1067      25.663 112.595  42.682  1.00140.13      6
ATOM   17225  OG1 THR G1067      24.988 111.415  43.141  1.00140.49      8
ATOM   17226  CG2 THR G1067      25.064 113.021  41.351  1.00141.43      6
ATOM   17227  C   THR G1067      27.928 113.632  42.345  1.00 91.33      6
ATOM   17228  O   THR G1067      27.795 114.302  41.316  1.00 91.60      8
ATOM   17229  N   VAL G1068      28.707 113.993  43.363  1.00 81.99      7
ATOM   17230  CA  VAL G1068      29.496 115.213  43.360  1.00 81.36      6
ATOM   17231  CB  VAL G1068      30.665 115.128  44.405  1.00 87.41      6
ATOM   17232  CG1 VAL G1068      31.290 116.499  44.622  1.00 88.37      6
ATOM   17233  CG2 VAL G1068      30.150 114.580  45.737  1.00 87.01      6
ATOM   17234  C   VAL G1068      30.066 115.355  41.957  1.00 80.45      6
ATOM   17235  O   VAL G1068      30.207 116.460  41.451  1.00 81.03      8
ATOM   17236  N   LEU G1069      30.352 114.218  41.325  1.00 52.69      7
ATOM   17237  CA  LEU G1069      30.922 114.168  39.977  1.00 51.59      6
ATOM   17238  CB  LEU G1069      29.919 114.635  38.921  1.00 37.44      6
ATOM   17239  CG  LEU G1069      29.947 113.859  37.600  1.00 36.50      6
```

308

```
ATOM    17240  CD1 LEU G1069      29.130 114.628  36.582  1.00  36.78      6
ATOM    17241  CD2 LEU G1069      31.371 113.669  37.099  1.00  35.23      6
ATOM    17242  C   LEU G1069      32.175 115.034  39.936  1.00  51.26      6
ATOM    17243  O   LEU G1069      32.662 115.443  38.876  1.00  50.85      8
ATOM    17244  N   GLU G1070      32.674 115.325  41.129  1.00  77.89      7
ATOM    17245  CA  GLU G1070      33.901 116.072  41.278  1.00  77.46      6
ATOM    17246  CB  GLU G1070      33.995 116.663  42.687  1.00 149.79      6
ATOM    17247  CG  GLU G1070      34.944 117.852  42.834  1.00 154.08      6
ATOM    17248  CD  GLU G1070      34.408 119.136  42.207  1.00 156.34      6
ATOM    17249  OE1 GLU G1070      33.355 119.643  42.655  1.00 157.77      8
ATOM    17250  OE2 GLU G1070      35.044 119.642  41.263  1.00 157.61      8
ATOM    17251  C   GLU G1070      34.837 114.885  41.126  1.00  75.60      6
ATOM    17252  O   GLU G1070      36.051 115.038  41.034  1.00  75.21      8
ATOM    17253  N   TYR G1071      34.209 113.699  41.108  1.00 107.97      7
ATOM    17254  CA  TYR G1071      34.833 112.373  40.948  1.00 104.08      6
ATOM    17255  CB  TYR G1071      33.936 111.493  40.055  1.00  35.29      6
ATOM    17256  CG  TYR G1071      34.095 109.984  40.181  1.00  29.68      6
ATOM    17257  CD1 TYR G1071      35.074 109.294  39.484  1.00  27.41      6
ATOM    17258  CE1 TYR G1071      35.180 107.922  39.587  1.00  27.10      6
ATOM    17259  CD2 TYR G1071      33.232 109.255  40.986  1.00  28.79      6
ATOM    17260  CE2 TYR G1071      33.329 107.897  41.100  1.00  27.77      6
ATOM    17261  CZ  TYR G1071      34.298 107.226  40.404  1.00  27.50      6
ATOM    17262  OH  TYR G1071      34.366 105.852  40.545  1.00  26.32      8
ATOM    17263  C   TYR G1071      36.168 112.562  40.275  1.00 103.87      6
ATOM    17264  O   TYR G1071      37.174 111.960  40.652  1.00 104.64      8
ATOM    17265  N   PHE G1072      36.150 113.414  39.260  1.00  38.33      7
ATOM    17266  CA  PHE G1072      37.340 113.719  38.516  1.00  36.88      6
ATOM    17267  CB  PHE G1072      37.058 114.821  37.511  1.00  29.37      6
ATOM    17268  CG  PHE G1072      38.220 115.127  36.659  1.00  27.82      6
ATOM    17269  CD1 PHE G1072      38.427 114.428  35.496  1.00  27.84      6
ATOM    17270  CD2 PHE G1072      39.175 116.032  37.080  1.00  26.66      6
ATOM    17271  CE1 PHE G1072      39.573 114.618  34.765  1.00  27.73      6
ATOM    17272  CE2 PHE G1072      40.317 116.224  36.356  1.00  26.85      6
ATOM    17273  CZ  PHE G1072      40.522 115.511  35.191  1.00  27.27      6
ATOM    17274  C   PHE G1072      38.449 114.155  39.470  1.00  36.89      6
ATOM    17275  O   PHE G1072      39.519 113.561  39.494  1.00  37.20      8
ATOM    17276  N   ILE G1073      38.192 115.200  40.248  1.00  64.76      7
ATOM    17277  CA  ILE G1073      39.165 115.696  41.209  1.00  64.05      6
ATOM    17278  CB  ILE G1073      38.472 116.503  42.325  1.00  36.18      6
ATOM    17279  CG2 ILE G1073      39.325 116.567  43.548  1.00  34.52      6
ATOM    17280  CG1 ILE G1073      38.207 117.916  41.848  1.00  36.83      6
ATOM    17281  CD1 ILE G1073      37.294 117.968  40.660  1.00  40.65      6
ATOM    17282  C   ILE G1073      39.952 114.549  41.836  1.00  64.73      6
ATOM    17283  O   ILE G1073      41.183 114.555  41.812  1.00  65.48      8
ATOM    17284  N   SER G1074      39.241 113.563  42.385  1.00  44.20      7
ATOM    17285  CA  SER G1074      39.886 112.413  43.025  1.00  43.60      6
ATOM    17286  CB  SER G1074      38.945 111.771  44.044  1.00  51.58      6
ATOM    17287  OG  SER G1074      37.888 111.099  43.391  1.00  51.10      8
ATOM    17288  C   SER G1074      40.329 111.353  42.017  1.00  43.55      6
ATOM    17289  O   SER G1074      41.104 110.461  42.364  1.00  43.93      8
ATOM    17290  N   SER G1075      39.834 111.455  40.781  1.00  37.72      7
ATOM    17291  CA  SER G1075      40.189 110.513  39.718  1.00  37.29      6
ATOM    17292  CB  SER G1075      39.585 110.946  38.373  1.00  27.72      6
ATOM    17293  OG  SER G1075      40.526 111.642  37.574  1.00  26.95      8
ATOM    17294  C   SER G1075      41.708 110.472  39.615  1.00  37.29      6
ATOM    17295  O   SER G1075      42.300 109.477  39.193  1.00  37.86      8
```

309

```
ATOM   17296  N   HIS G1076      42.333 111.571  40.006  1.00 23.97      7
ATOM   17297  CA  HIS G1076      43.778 111.651  39.994  1.00 24.01      6
ATOM   17298  CB  HIS G1076      44.243 113.092  40.215  1.00 69.89      6
ATOM   17299  CG  HIS G1076      43.531 114.103  39.367  1.00 71.73      6
ATOM   17300  CD2 HIS G1076      42.223 114.236  39.045  1.00 72.14      6
ATOM   17301  ND1 HIS G1076      44.178 115.171  38.784  1.00 73.19      7
ATOM   17302  CE1 HIS G1076      43.300 115.919  38.141  1.00 72.53      6
ATOM   17303  NE2 HIS G1076      42.106 115.373  38.285  1.00 72.39      7
ATOM   17304  C   HIS G1076      44.227 110.775  41.155  1.00 22.98      6
ATOM   17305  O   HIS G1076      43.972 109.579  41.143  1.00 22.29      8
ATOM   17306  N   GLY G1077      44.877 111.379  42.146  1.00 29.05      7
ATOM   17307  CA  GLY G1077      45.345 110.665  43.325  1.00 29.29      6
ATOM   17308  C   GLY G1077      45.300 109.142  43.364  1.00 30.06      6
ATOM   17309  O   GLY G1077      46.336 108.489  43.563  1.00 30.33      8
ATOM   17310  N   ALA G1078      44.107 108.566  43.218  1.00 30.46      7
ATOM   17311  CA  ALA G1078      43.969 107.113  43.221  1.00 31.01      6
ATOM   17312  CB  ALA G1078      42.550 106.717  42.849  1.00 92.82      6
ATOM   17313  C   ALA G1078      44.961 106.551  42.206  1.00 31.42      6
ATOM   17314  O   ALA G1078      45.534 105.488  42.408  1.00 31.49      8
ATOM   17315  N   ARG G1079      45.151 107.273  41.110  1.00 20.51      7
ATOM   17316  CA  ARG G1079      46.105 106.867  40.094  1.00 21.30      6
ATOM   17317  CB  ARG G1079      45.995 107.759  38.852  1.00 32.85      6
ATOM   17318  CG  ARG G1079      44.744 107.540  37.979  1.00 30.64      6
ATOM   17319  CD  ARG G1079      44.797 106.255  37.127  1.00 27.10      6
ATOM   17320  NE  ARG G1079      44.452 106.510  35.730  1.00 21.58      7
ATOM   17321  CZ  ARG G1079      45.223 107.188  34.897  1.00 19.55      6
ATOM   17322  NH1 ARG G1079      46.374 107.670  35.318  1.00 20.65      7
ATOM   17323  NH2 ARG G1079      44.846 107.388  33.654  1.00 15.90      7
ATOM   17324  C   ARG G1079      47.536 106.943  40.650  1.00 23.49      6
ATOM   17325  O   ARG G1079      48.287 105.982  40.543  1.00 23.18      8
ATOM   17326  N   LYS G1080      47.943 108.069  41.232  1.00 49.26      7
ATOM   17327  CA  LYS G1080      49.299 108.115  41.765  1.00 53.08      6
ATOM   17328  CB  LYS G1080      49.632 109.465  42.413  1.00 71.79      6
ATOM   17329  CG  LYS G1080      48.858 109.842  43.680  1.00 74.53      6
ATOM   17330  CD  LYS G1080      49.271 111.268  44.115  1.00 75.99      6
ATOM   17331  CE  LYS G1080      48.356 111.905  45.166  1.00 75.28      6
ATOM   17332  NZ  LYS G1080      48.592 113.384  45.230  1.00 73.92      7
ATOM   17333  C   LYS G1080      49.314 107.013  42.787  1.00 54.74      6
ATOM   17334  O   LYS G1080      50.326 106.352  42.997  1.00 55.03      8
ATOM   17335  N   GLY G1081      48.155 106.803  43.397  1.00 62.41      7
ATOM   17336  CA  GLY G1081      48.013 105.747  44.376  1.00 65.40      6
ATOM   17337  C   GLY G1081      47.994 104.403  43.665  1.00 66.82      6
ATOM   17338  O   GLY G1081      47.412 103.428  44.148  1.00 66.69      8
ATOM   17339  N   GLY G1082      48.637 104.361  42.504  1.00 41.64      7
ATOM   17340  CA  GLY G1082      48.697 103.147  41.711  1.00 43.79      6
ATOM   17341  C   GLY G1082      49.880 103.285  40.782  1.00 45.02      6
ATOM   17342  O   GLY G1082      50.269 102.347  40.088  1.00 43.67      8
ATOM   17343  N   ALA G1083      50.438 104.489  40.764  1.00 69.21      7
ATOM   17344  CA  ALA G1083      51.602 104.776  39.952  1.00 71.61      6
ATOM   17345  CB  ALA G1083      51.891 106.262  39.965  1.00 97.90      6
ATOM   17346  C   ALA G1083      52.720 104.015  40.641  1.00 73.49      6
ATOM   17347  O   ALA G1083      53.598 103.446  39.995  1.00 74.35      8
ATOM   17348  N   ASP G1084      52.671 104.006  41.970  1.00 68.22      7
ATOM   17349  CA  ASP G1084      53.671 103.300  42.757  1.00 70.05      6
ATOM   17350  CB  ASP G1084      53.648 103.764  44.224  1.00137.38      6
ATOM   17351  CG  ASP G1084      54.382 105.092  44.438  1.00138.90      6
```

310

```
ATOM   17352  OD1 ASP G1084      55.593 105.179  44.131  1.00138.95      8
ATOM   17353  OD2 ASP G1084      53.746 106.051  44.923  1.00140.40      8
ATOM   17354  C   ASP G1084      53.432 101.796  42.662  1.00 70.56      6
ATOM   17355  O   ASP G1084      54.378 101.027  42.549  1.00 70.04      8
ATOM   17356  N   THR G1085      52.173 101.367  42.691  1.00 74.52      7
ATOM   17357  CA  THR G1085      51.891  99.938  42.580  1.00 75.50      6
ATOM   17358  CB  THR G1085      50.377  99.657  42.478  1.00 68.09      6
ATOM   17359  OG1 THR G1085      49.876 100.134  41.220  1.00 68.24      8
ATOM   17360  CG2 THR G1085      49.642 100.342  43.619  1.00 68.36      6
ATOM   17361  C   THR G1085      52.588  99.415  41.324  1.00 76.40      6
ATOM   17362  O   THR G1085      52.778  98.211  41.148  1.00 76.52      8
ATOM   17363  N   ALA G1086      52.969 100.338  40.448  1.00 83.59      7
ATOM   17364  CA  ALA G1086      53.669  99.979  39.232  1.00 84.65      6
ATOM   17365  CB  ALA G1086      53.715 101.154  38.295  1.00 80.40      6
ATOM   17366  C   ALA G1086      55.073  99.591  39.664  1.00 85.51      6
ATOM   17367  O   ALA G1086      55.969  99.408  38.840  1.00 85.92      8
ATOM   17368  N   LEU G1087      55.240  99.482  40.980  1.00102.04      7
ATOM   17369  CA  LEU G1087      56.494  99.093  41.622  1.00103.66      6
ATOM   17370  CB  LEU G1087      56.471  99.525  43.089  1.00121.59      6
ATOM   17371  CG  LEU G1087      57.702  99.415  43.984  1.00122.48      6
ATOM   17372  CD1 LEU G1087      58.753 100.432  43.564  1.00122.43      6
ATOM   17373  CD2 LEU G1087      57.275  99.674  45.417  1.00121.96      6
ATOM   17374  C   LEU G1087      56.531  97.569  41.542  1.00104.53      6
ATOM   17375  O   LEU G1087      57.367  96.907  42.160  1.00105.07      8
ATOM   17376  N   ARG G1088      55.589  97.031  40.775  1.00178.21      7
ATOM   17377  CA  ARG G1088      55.448  95.598  40.576  1.00178.10      6
ATOM   17378  CB  ARG G1088      54.368  95.336  39.520  1.00156.51      6
ATOM   17379  CG  ARG G1088      54.021  93.872  39.324  1.00156.71      6
ATOM   17380  CD  ARG G1088      52.731  93.715  38.533  1.00157.04      6
ATOM   17381  NE  ARG G1088      52.366  92.311  38.367  1.00156.99      7
ATOM   17382  CZ  ARG G1088      51.218  91.893  37.845  1.00156.86      6
ATOM   17383  NH1 ARG G1088      50.312  92.770  37.436  1.00156.51      7
ATOM   17384  NH2 ARG G1088      50.976  90.594  37.726  1.00156.68      7
ATOM   17385  C   ARG G1088      56.761  94.944  40.162  1.00177.89      6
ATOM   17386  O   ARG G1088      57.267  94.063  40.861  1.00178.39      8
ATOM   17387  N   THR G1089      57.313  95.376  39.031  1.00 70.41      7
ATOM   17388  CA  THR G1089      58.571  94.812  38.539  1.00 70.64      6
ATOM   17389  CB  THR G1089      58.841  95.209  37.070  1.00 84.81      6
ATOM   17390  OG1 THR G1089      57.656  95.016  36.292  1.00 85.76      8
ATOM   17391  CG2 THR G1089      59.947  94.351  36.486  1.00 84.90      6
ATOM   17392  C   THR G1089      59.719  95.335  39.393  1.00 70.04      6
ATOM   17393  O   THR G1089      60.761  94.686  39.522  1.00 69.06      8
ATOM   17394  N   ALA G1090      59.501  96.511  39.977  1.00194.50      7
ATOM   17395  CA  ALA G1090      60.487  97.183  40.816  1.00194.95      6
ATOM   17396  CB  ALA G1090      59.796  98.107  41.800  1.00 61.34      6
ATOM   17397  C   ALA G1090      61.404  96.240  41.569  1.00195.05      6
ATOM   17398  O   ALA G1090      62.454  95.847  41.058  1.00195.73      8
ATOM   17399  N   ASP G1091      61.003  95.872  42.783  1.00 93.23      7
ATOM   17400  CA  ASP G1091      61.828  94.998  43.605  1.00 92.34      6
ATOM   17401  CB  ASP G1091      61.231  94.889  45.013  1.00 83.99      6
ATOM   17402  CG  ASP G1091      61.340  96.202  45.789  1.00 83.05      6
ATOM   17403  OD1 ASP G1091      62.478  96.654  46.062  1.00 82.49      8
ATOM   17404  OD2 ASP G1091      60.285  96.786  46.115  1.00 82.36      8
ATOM   17405  C   ASP G1091      62.105  93.623  42.992  1.00 91.56      6
ATOM   17406  O   ASP G1091      62.663  92.731  43.645  1.00 91.17      8
ATOM   17407  N   SER G1092      61.725  93.470  41.726  1.00129.54      7
```

311

```
ATOM   17408  CA   SER G1092      61.987  92.244  40.984  1.00128.90      6
ATOM   17409  CB   SER G1092      60.798  91.888  40.085  1.00194.76      6
ATOM   17410  OG   SER G1092      61.005  90.645  39.433  1.00196.14      8
ATOM   17411  C    SER G1092      63.224  92.582  40.145  1.00127.29      6
ATOM   17412  O    SER G1092      63.170  92.691  38.918  1.00126.64      8
ATOM   17413  N    GLY G1093      64.336  92.772  40.845  1.00143.66      7
ATOM   17414  CA   GLY G1093      65.589  93.125  40.206  1.00140.25      6
ATOM   17415  C    GLY G1093      66.301  94.153  41.067  1.00137.55      6
ATOM   17416  O    GLY G1093      67.356  94.670  40.698  1.00137.13      8
ATOM   17417  N    TYR G1094      65.708  94.439  42.226  1.00 54.22      7
ATOM   17418  CA   TYR G1094      66.249  95.405  43.172  1.00 51.65      6
ATOM   17419  CB   TYR G1094      65.610  96.781  42.948  1.00133.04      6
ATOM   17420  CG   TYR G1094      66.599  97.922  42.786  1.00134.84      6
ATOM   17421  CD1  TYR G1094      66.182  99.166  42.310  1.00136.73      6
ATOM   17422  CE1  TYR G1094      67.093 100.212  42.119  1.00137.94      6
ATOM   17423  CD2  TYR G1094      67.954  97.753  43.077  1.00134.57      6
ATOM   17424  CE2  TYR G1094      68.866  98.790  42.891  1.00135.98      6
ATOM   17425  CZ   TYR G1094      68.434 100.014  42.410  1.00137.81      6
ATOM   17426  OH   TYR G1094      69.346 101.027  42.203  1.00138.02      8
ATOM   17427  C    TYR G1094      66.022  94.969  44.619  1.00 48.98      6
ATOM   17428  O    TYR G1094      65.163  94.136  44.922  1.00 47.60      8
ATOM   17429  N    LEU G1095      66.811  95.572  45.500  1.00101.18      7
ATOM   17430  CA   LEU G1095      66.794  95.321  46.933  1.00 96.70      6
ATOM   17431  CB   LEU G1095      65.480  95.783  47.571  1.00 36.18      6
ATOM   17432  CG   LEU G1095      65.765  96.383  48.956  1.00 33.82      6
ATOM   17433  CD1  LEU G1095      66.802  97.447  48.793  1.00 33.91      6
ATOM   17434  CD2  LEU G1095      64.532  96.993  49.585  1.00 32.66      6
ATOM   17435  C    LEU G1095      67.076  93.874  47.283  1.00 94.62      6
ATOM   17436  O    LEU G1095      68.241  93.487  47.325  1.00 95.74      8
ATOM   17437  N    THR G1096      66.043  93.069  47.531  1.00 48.39      7
ATOM   17438  CA   THR G1096      66.287  91.671  47.886  1.00 44.22      6
ATOM   17439  CB   THR G1096      65.072  90.764  47.691  1.00 41.35      6
ATOM   17440  OG1  THR G1096      64.002  91.198  48.527  1.00 42.13      8
ATOM   17441  CG2  THR G1096      65.423  89.347  48.074  1.00 39.86      6
ATOM   17442  C    THR G1096      67.370  91.119  46.996  1.00 43.15      6
ATOM   17443  O    THR G1096      68.358  90.571  47.483  1.00 43.99      8
ATOM   17444  N    ARG G1097      67.184  91.271  45.687  1.00 29.03      7
ATOM   17445  CA   ARG G1097      68.159  90.766  44.732  1.00 25.02      6
ATOM   17446  CB   ARG G1097      67.828  91.212  43.310  1.00 28.45      6
ATOM   17447  CG   ARG G1097      68.784  90.655  42.277  1.00 23.84      6
ATOM   17448  CD   ARG G1097      68.499  91.168  40.869  1.00 19.46      6
ATOM   17449  NE   ARG G1097      67.263  90.635  40.304  1.00 16.77      7
ATOM   17450  CZ   ARG G1097      66.919  89.351  40.308  1.00 16.55      6
ATOM   17451  NH1  ARG G1097      67.714  88.452  40.853  1.00 15.75      7
ATOM   17452  NH2  ARG G1097      65.780  88.961  39.759  1.00 17.24      7
ATOM   17453  C    ARG G1097      69.519  91.279  45.124  1.00 24.71      6
ATOM   17454  O    ARG G1097      70.469  90.514  45.179  1.00 23.96      8
ATOM   17455  N    LYS G1098      69.598  92.572  45.426  1.00 46.29      7
ATOM   17456  CA   LYS G1098      70.860  93.191  45.814  1.00 47.25      6
ATOM   17457  CB   LYS G1098      70.722  94.709  45.744  1.00 73.47      6
ATOM   17458  CG   LYS G1098      70.735  95.226  44.313  1.00 77.29      6
ATOM   17459  CD   LYS G1098      70.969  96.726  44.262  1.00 80.57      6
ATOM   17460  CE   LYS G1098      71.525  97.160  42.908  1.00 82.23      6
ATOM   17461  NZ   LYS G1098      71.750  98.636  42.861  1.00 84.21      7
ATOM   17462  C    LYS G1098      71.426  92.760  47.174  1.00 45.94      6
ATOM   17463  O    LYS G1098      72.601  92.402  47.275  1.00 45.56      8
```

312

ATOM	17464	N	LEU	G1099	70.601	92.800	48.213	1.00	15.40	7
ATOM	17465	CA	LEU	G1099	71.036	92.388	49.534	1.00	13.87	6
ATOM	17466	CB	LEU	G1099	69.944	92.639	50.582	1.00	18.91	6
ATOM	17467	CG	LEU	G1099	69.566	94.053	51.039	1.00	17.91	6
ATOM	17468	CD1	LEU	G1099	68.710	94.779	50.010	1.00	17.09	6
ATOM	17469	CD2	LEU	G1099	68.801	93.919	52.332	1.00	17.63	6
ATOM	17470	C	LEU	G1099	71.363	90.900	49.513	1.00	14.40	6
ATOM	17471	O	LEU	G1099	72.361	90.476	50.091	1.00	15.05	8
ATOM	17472	N	VAL	G1100	70.517	90.103	48.856	1.00	42.02	7
ATOM	17473	CA	VAL	G1100	70.729	88.651	48.780	1.00	42.77	6
ATOM	17474	CB	VAL	G1100	69.726	87.952	47.814	1.00	35.80	6
ATOM	17475	CG1	VAL	G1100	70.199	86.554	47.521	1.00	35.22	6
ATOM	17476	CG2	VAL	G1100	68.346	87.882	48.429	1.00	36.82	6
ATOM	17477	C	VAL	G1100	72.134	88.335	48.298	1.00	43.84	6
ATOM	17478	O	VAL	G1100	72.677	87.269	48.601	1.00	43.89	8
ATOM	17479	N	ASP	G1101	72.707	89.267	47.539	1.00	44.54	7
ATOM	17480	CA	ASP	G1101	74.048	89.115	46.999	1.00	44.01	6
ATOM	17481	CB	ASP	G1101	74.198	89.914	45.707	1.00	34.48	6
ATOM	17482	CG	ASP	G1101	73.492	89.251	44.533	1.00	35.27	6
ATOM	17483	OD1	ASP	G1101	73.459	87.999	44.524	1.00	33.92	8
ATOM	17484	OD2	ASP	G1101	72.986	89.958	43.619	1.00	35.56	8
ATOM	17485	C	ASP	G1101	75.108	89.539	47.995	1.00	44.61	6
ATOM	17486	O	ASP	G1101	76.209	88.999	47.992	1.00	45.63	8
ATOM	17487	N	VAL	G1102	74.773	90.500	48.852	1.00	42.29	7
ATOM	17488	CA	VAL	G1102	75.699	90.991	49.867	1.00	42.96	6
ATOM	17489	CB	VAL	G1102	75.353	92.393	50.313	1.00	19.63	6
ATOM	17490	CG1	VAL	G1102	76.338	92.845	51.345	1.00	18.89	6
ATOM	17491	CG2	VAL	G1102	75.350	93.317	49.142	1.00	18.39	6
ATOM	17492	C	VAL	G1102	75.661	90.123	51.103	1.00	44.74	6
ATOM	17493	O	VAL	G1102	76.650	90.027	51.816	1.00	44.43	8
ATOM	17494	N	ALA	G1103	74.503	89.528	51.372	1.00	54.22	7
ATOM	17495	CA	ALA	G1103	74.335	88.646	52.515	1.00	56.42	6
ATOM	17496	CB	ALA	G1103	72.882	88.605	52.934	1.00	99.83	6
ATOM	17497	C	ALA	G1103	74.792	87.270	52.058	1.00	57.74	6
ATOM	17498	O	ALA	G1103	75.655	87.172	51.197	1.00	58.10	8
ATOM	17499	N	HIS	G1104	74.198	86.213	52.606	1.00	98.67	7
ATOM	17500	CA	HIS	G1104	74.559	84.830	52.267	1.00	99.80	6
ATOM	17501	CB	HIS	G1104	74.088	84.469	50.839	1.00	68.73	6
ATOM	17502	CG	HIS	G1104	75.128	84.600	49.770	1.00	71.34	6
ATOM	17503	CD2	HIS	G1104	75.330	85.561	48.837	1.00	72.06	6
ATOM	17504	ND1	HIS	G1104	76.065	83.622	49.519	1.00	72.73	7
ATOM	17505	CE1	HIS	G1104	76.796	83.973	48.476	1.00	74.18	6
ATOM	17506	NE2	HIS	G1104	76.370	85.146	48.043	1.00	74.66	7
ATOM	17507	C	HIS	G1104	76.056	84.662	52.472	1.00	99.23	6
ATOM	17508	O	HIS	G1104	76.767	85.650	52.627	1.00	100.11	8
ATOM	17509	N	GLU	G1105	76.549	83.430	52.504	1.00	48.15	7
ATOM	17510	CA	GLU	G1105	77.969	83.234	52.787	1.00	47.26	6
ATOM	17511	CB	GLU	G1105	78.838	84.099	51.874	1.00	66.71	6
ATOM	17512	CG	GLU	G1105	80.222	84.396	52.415	1.00	67.87	6
ATOM	17513	CD	GLU	G1105	80.555	85.873	52.341	1.00	68.89	6
ATOM	17514	OE1	GLU	G1105	79.711	86.691	52.770	1.00	67.97	8
ATOM	17515	OE2	GLU	G1105	81.661	86.214	51.862	1.00	70.37	8
ATOM	17516	C	GLU	G1105	78.092	83.733	54.221	1.00	46.84	6
ATOM	17517	O	GLU	G1105	79.159	83.714	54.827	1.00	48.11	8
ATOM	17518	N	ILE	G1106	76.960	84.189	54.742	1.00	53.44	7
ATOM	17519	CA	ILE	G1106	76.830	84.722	56.085	1.00	51.14	6

```
ATOM  17520  CB   ILE G1106      76.142  86.124  56.027  1.00 15.21      6
ATOM  17521  CG2  ILE G1106      75.818  86.656  57.388  1.00 14.34      6
ATOM  17522  CG1  ILE G1106      77.089  87.117  55.382  1.00 14.30      6
ATOM  17523  CD1  ILE G1106      78.412  87.180  56.084  1.00 15.16      6
ATOM  17524  C    ILE G1106      75.950  83.714  56.793  1.00 50.82      6
ATOM  17525  O    ILE G1106      74.735  83.842  56.785  1.00 51.03      8
ATOM  17526  N    VAL G1107      76.559  82.696  57.387  1.00 17.44      7
ATOM  17527  CA   VAL G1107      75.782  81.665  58.071  1.00 17.20      6
ATOM  17528  CB   VAL G1107      75.922  80.319  57.335  1.00 19.16      6
ATOM  17529  CG1  VAL G1107      75.114  79.254  58.039  1.00 20.01      6
ATOM  17530  CG2  VAL G1107      75.473  80.470  55.893  1.00 17.33      6
ATOM  17531  C    VAL G1107      76.127  81.459  59.549  1.00 18.68      6
ATOM  17532  O    VAL G1107      77.233  81.724  59.980  1.00 19.66      8
ATOM  17533  N    VAL G1108      75.160  80.998  60.326  1.00 45.65      7
ATOM  17534  CA   VAL G1108      75.378  80.751  61.740  1.00 47.62      6
ATOM  17535  CB   VAL G1108      74.056  80.354  62.422  1.00 55.91      6
ATOM  17536  CG1  VAL G1108      74.293  80.000  63.867  1.00 56.80      6
ATOM  17537  CG2  VAL G1108      73.061  81.485  62.307  1.00 55.44      6
ATOM  17538  C    VAL G1108      76.378  79.607  61.848  1.00 49.77      6
ATOM  17539  O    VAL G1108      76.005  78.435  61.777  1.00 50.63      8
ATOM  17540  N    ARG G1109      77.652  79.947  62.006  1.00 53.06      7
ATOM  17541  CA   ARG G1109      78.701  78.936  62.106  1.00 53.93      6
ATOM  17542  CB   ARG G1109      79.727  79.139  60.994  1.00 54.75      6
ATOM  17543  CG   ARG G1109      79.117  79.547  59.665  1.00 54.83      6
ATOM  17544  CD   ARG G1109      80.168  79.715  58.586  1.00 55.76      6
ATOM  17545  NE   ARG G1109      79.608  80.345  57.398  1.00 58.64      7
ATOM  17546  CZ   ARG G1109      80.107  80.194  56.177  1.00 60.66      6
ATOM  17547  NH1  ARG G1109      81.173  79.431  55.996  1.00 62.22      7
ATOM  17548  NH2  ARG G1109      79.543  80.792  55.135  1.00 61.45      7
ATOM  17549  C    ARG G1109      79.397  79.064  63.447  1.00 55.14      6
ATOM  17550  O    ARG G1109      79.948  80.118  63.739  1.00 56.53      8
ATOM  17551  N    GLU G1110      79.354  77.997  64.248  1.00 69.74      7
ATOM  17552  CA   GLU G1110      79.978  77.929  65.580  1.00 70.44      6
ATOM  17553  CB   GLU G1110      81.361  78.608  65.580  1.00 29.53      6
ATOM  17554  CG   GLU G1110      81.372  80.083  65.958  1.00 27.59      6
ATOM  17555  CD   GLU G1110      82.728  80.726  65.753  1.00 27.62      6
ATOM  17556  OE1  GLU G1110      83.703  80.239  66.369  1.00 28.62      8
ATOM  17557  OE2  GLU G1110      82.816  81.713  64.978  1.00 26.76      8
ATOM  17558  C    GLU G1110      79.130  78.504  66.714  1.00 71.85      6
ATOM  17559  O    GLU G1110      77.916  78.575  66.624  1.00 72.65      8
ATOM  17560  N    ALA G1111      79.777  78.897  67.801  1.00 70.73      7
ATOM  17561  CA   ALA G1111      79.048  79.459  68.922  1.00 71.48      6
ATOM  17562  CB   ALA G1111      78.464  78.335  69.781  1.00 13.87      6
ATOM  17563  C    ALA G1111      79.922  80.388  69.769  1.00 73.10      6
ATOM  17564  O    ALA G1111      81.158  80.359  69.681  1.00 73.20      8
ATOM  17565  N    ALA G1112      79.247  81.215  70.571  1.00149.19      7
ATOM  17566  CA   ALA G1112      79.857  82.195  71.475  1.00150.93      6
ATOM  17567  CB   ALA G1112      79.488  81.860  72.920  1.00126.92      6
ATOM  17568  C    ALA G1112      81.365  82.323  71.350  1.00151.11      6
ATOM  17569  O    ALA G1112      82.088  82.123  72.324  1.00151.26      8
ATOM  17570  N    CYS G1113      81.829  82.667  70.153  1.00 86.03      7
ATOM  17571  CA   CYS G1113      83.251  82.818  69.893  1.00 85.94      6
ATOM  17572  CB   CYS G1113      83.468  83.616  68.610  1.00 58.96      6
ATOM  17573  SG   CYS G1113      82.777  85.280  68.651  1.00 57.92     16
ATOM  17574  C    CYS G1113      83.944  83.523  71.047  1.00 86.24      6
ATOM  17575  O    CYS G1113      84.355  82.889  72.019  1.00 86.35      8
```

314

```
ATOM  17576  N    GLY G1114     84.073  84.839  70.934  1.00 68.89      7
ATOM  17577  CA   GLY G1114     84.715  85.615  71.976  1.00 69.12      6
ATOM  17578  C    GLY G1114     84.082  86.984  72.042  1.00 68.79      6
ATOM  17579  O    GLY G1114     84.363  87.840  71.204  1.00 68.51      8
ATOM  17580  N    ALA G1115     83.220  87.181  73.034  1.00 69.28      7
ATOM  17581  CA   ALA G1115     82.523  88.450  73.217  1.00 69.62      6
ATOM  17582  CB   ALA G1115     81.777  88.448  74.550  1.00127.54      6
ATOM  17583  C    ALA G1115     83.490  89.626  73.164  1.00 69.24      6
ATOM  17584  O    ALA G1115     83.977  90.000  72.092  1.00 68.67      8
ATOM  17585  N    ALA G1116     83.759  90.214  74.322  1.00 92.92      7
ATOM  17586  CA   ALA G1116     84.674  91.333  74.382  1.00 92.82      6
ATOM  17587  CB   ALA G1116     86.066  90.880  73.961  1.00 98.99      6
ATOM  17588  C    ALA G1116     84.199  92.460  73.476  1.00 92.10      6
ATOM  17589  O    ALA G1116     84.972  93.359  73.142  1.00 93.50      8
ATOM  17590  N    ALA G1117     82.937  92.407  73.063  1.00 76.64      7
ATOM  17591  CA   ALA G1117     82.377  93.451  72.206  1.00 74.11      6
ATOM  17592  CB   ALA G1117     82.894  93.316  70.791  1.00 43.28      6
ATOM  17593  C    ALA G1117     80.856  93.404  72.227  1.00 72.27      6
ATOM  17594  O    ALA G1117     80.254  92.344  72.342  1.00 71.97      8
ATOM  17595  N    ALA G1118     80.238  94.568  72.106  1.00 31.47      7
ATOM  17596  CA   ALA G1118     78.801  94.670  72.167  1.00 28.93      6
ATOM  17597  CB   ALA G1118     78.383  94.776  73.618  1.00 13.87      6
ATOM  17598  C    ALA G1118     78.342  95.900  71.400  1.00 28.09      6
ATOM  17599  O    ALA G1118     79.118  96.528  70.689  1.00 27.74      8
ATOM  17600  N    ILE G1119     77.063  96.223  71.545  1.00 46.47      7
ATOM  17601  CA   ILE G1119     76.441  97.383  70.909  1.00 45.45      6
ATOM  17602  CB   ILE G1119     75.636  97.019  69.627  1.00 35.54      6
ATOM  17603  CG2  ILE G1119     75.325  98.261  68.810  1.00 34.58      6
ATOM  17604  CG1  ILE G1119     76.414  96.028  68.777  1.00 34.64      6
ATOM  17605  CD1  ILE G1119     76.379  94.635  69.339  1.00 35.67      6
ATOM  17606  C    ILE G1119     75.425  97.711  71.972  1.00 45.61      6
ATOM  17607  O    ILE G1119     74.536  96.901  72.224  1.00 45.90      8
ATOM  17608  N    SER G1120     75.542  98.858  72.623  1.00 37.17      7
ATOM  17609  CA   SER G1120     74.560  99.159  73.645  1.00 36.77      6
ATOM  17610  CB   SER G1120     75.193  99.967  74.772  1.00 44.93      6
ATOM  17611  OG   SER G1120     75.383  99.135  75.910  1.00 46.11      8
ATOM  17612  C    SER G1120     73.344  99.871  73.066  1.00 36.37      6
ATOM  17613  O    SER G1120     73.306 101.097  72.985  1.00 37.49      8
ATOM  17614  N    VAL G1121     72.349  99.076  72.667  1.00 32.16      7
ATOM  17615  CA   VAL G1121     71.122  99.582  72.071  1.00 30.39      6
ATOM  17616  CB   VAL G1121     70.135  98.460  71.824  1.00 58.71      6
ATOM  17617  CG1  VAL G1121     69.005  98.963  70.963  1.00 60.29      6
ATOM  17618  CG2  VAL G1121     70.840  97.290  71.172  1.00 59.82      6
ATOM  17619  C    VAL G1121     70.464 100.589  72.980  1.00 29.18      6
ATOM  17620  O    VAL G1121     70.232 100.311  74.142  1.00 29.18      8
ATOM  17621  N    PRO G1122     70.152 101.777  72.459  1.00 24.86      7
ATOM  17622  CD   PRO G1122     70.535 102.239  71.118  1.00 16.24      6
ATOM  17623  CA   PRO G1122     69.516 102.866  73.196  1.00 26.04      6
ATOM  17624  CB   PRO G1122     69.845 104.066  72.343  1.00 17.24      6
ATOM  17625  CG   PRO G1122     69.737 103.504  70.984  1.00 15.41      6
ATOM  17626  C    PRO G1122     68.019 102.720  73.358  1.00 27.64      6
ATOM  17627  O    PRO G1122     67.317 102.390  72.407  1.00 27.62      8
ATOM  17628  N    LEU G1123     67.528 102.983  74.559  1.00 86.74      7
ATOM  17629  CA   LEU G1123     66.101 102.895  74.808  1.00 88.45      6
ATOM  17630  CB   LEU G1123     65.843 102.158  76.116  1.00 21.15      6
ATOM  17631  CG   LEU G1123     65.935 100.633  76.015  1.00 18.97      6
```

315

```
ATOM  17632  CD1 LEU G1123      67.235 100.180  75.409  1.00 16.38       6
ATOM  17633  CD2 LEU G1123      65.792 100.068  77.399  1.00 17.40       6
ATOM  17634  C   LEU G1123      65.540 104.308  74.850  1.00 91.01       6
ATOM  17635  O   LEU G1123      64.337 104.525  75.016  1.00 92.76       8
ATOM  17636  N   PHE G1124      66.443 105.270  74.699  1.00 48.00       7
ATOM  17637  CA  PHE G1124      66.096 106.682  74.677  1.00 47.33       6
ATOM  17638  CB  PHE G1124      66.771 107.425  75.832  1.00 29.41       6
ATOM  17639  CG  PHE G1124      66.153 107.188  77.182  1.00 26.55       6
ATOM  17640  CD1 PHE G1124      65.100 107.969  77.623  1.00 25.74       6
ATOM  17641  CD2 PHE G1124      66.660 106.210  78.036  1.00 25.58       6
ATOM  17642  CE1 PHE G1124      64.560 107.783  78.902  1.00 25.32       6
ATOM  17643  CE2 PHE G1124      66.126 106.015  79.314  1.00 24.75       6
ATOM  17644  CZ  PHE G1124      65.074 106.805  79.748  1.00 24.40       6
ATOM  17645  C   PHE G1124      66.706 107.170  73.370  1.00 49.32       6
ATOM  17646  O   PHE G1124      67.845 106.815  73.058  1.00 48.69       8
ATOM  17647  N   GLN G1125      65.954 107.964  72.610  1.00 50.63       7
ATOM  17648  CA  GLN G1125      66.434 108.526  71.343  1.00 54.26       6
ATOM  17649  CB  GLN G1125      65.771 107.834  70.149  1.00111.66       6
ATOM  17650  CG  GLN G1125      66.695 106.889  69.378  1.00115.56       6
ATOM  17651  CD  GLN G1125      67.815 107.617  68.649  1.00116.51       6
ATOM  17652  OE1 GLN G1125      67.568 108.404  67.732  1.00117.20       8
ATOM  17653  NE2 GLN G1125      69.053 107.355  69.054  1.00116.80       7
ATOM  17654  C   GLN G1125      66.112 110.012  71.311  1.00 55.90       6
ATOM  17655  O   GLN G1125      65.425 110.518  72.203  1.00 55.43       8
ATOM  17656  N   MET G1126      66.590 110.723  70.292  1.00 64.27       7
ATOM  17657  CA  MET G1126      66.316 112.156  70.234  1.00 67.94       6
ATOM  17658  CB  MET G1126      67.529 112.938  70.719  1.00 71.09       6
ATOM  17659  CG  MET G1126      67.189 114.350  71.142  1.00 70.18       6
ATOM  17660  SD  MET G1126      68.650 115.351  71.215  1.00 70.84      16
ATOM  17661  CE  MET G1126      69.645 114.448  72.460  1.00 69.37       6
ATOM  17662  C   MET G1126      65.843 112.772  68.917  1.00 70.21       6
ATOM  17663  O   MET G1126      66.120 112.280  67.822  1.00 71.17       8
ATOM  17664  N   ASP G1127      65.136 113.886  69.069  1.00 83.97       7
ATOM  17665  CA  ASP G1127      64.571 114.660  67.973  1.00 85.60       6
ATOM  17666  CB  ASP G1127      63.141 115.068  68.372  1.00 90.36       6
ATOM  17667  CG  ASP G1127      62.640 116.303  67.648  1.00 90.91       6
ATOM  17668  OD1 ASP G1127      63.040 117.425  68.032  1.00 90.86       8
ATOM  17669  OD2 ASP G1127      61.836 116.149  66.701  1.00 90.61       8
ATOM  17670  C   ASP G1127      65.461 115.880  67.709  1.00 86.98       6
ATOM  17671  O   ASP G1127      65.397 116.873  68.437  1.00 87.91       8
ATOM  17672  N   GLU G1128      66.301 115.791  66.676  1.00 69.91       7
ATOM  17673  CA  GLU G1128      67.215 116.883  66.318  1.00 70.82       6
ATOM  17674  CB  GLU G1128      67.917 116.591  64.986  1.00119.73       6
ATOM  17675  CG  GLU G1128      68.731 115.307  64.970  1.00121.05       6
ATOM  17676  CD  GLU G1128      69.453 115.076  63.650  1.00122.37       6
ATOM  17677  OE1 GLU G1128      68.792 115.067  62.587  1.00123.48       8
ATOM  17678  OE2 GLU G1128      70.688 114.897  63.681  1.00122.49       8
ATOM  17679  C   GLU G1128      66.499 118.227  66.216  1.00 71.11       6
ATOM  17680  O   GLU G1128      67.143 119.273  66.270  1.00 70.66       8
ATOM  17681  N   VAL G1129      65.173 118.182  66.062  1.00 27.26       7
ATOM  17682  CA  VAL G1129      64.337 119.374  65.953  1.00 28.36       6
ATOM  17683  CB  VAL G1129      62.840 119.013  65.839  1.00195.38       6
ATOM  17684  CG1 VAL G1129      61.997 120.277  65.767  1.00196.97       6
ATOM  17685  CG2 VAL G1129      62.607 118.150  64.614  1.00196.60       6
ATOM  17686  C   VAL G1129      64.534 120.231  67.179  1.00 27.77       6
ATOM  17687  O   VAL G1129      65.180 121.267  67.103  1.00 27.79       8
```

316

```
ATOM  17688  N    THR G1130      63.980 119.803  68.310  1.00 79.94      7
ATOM  17689  CA   THR G1130      64.126 120.558  69.552  1.00 82.10      6
ATOM  17690  CB   THR G1130      62.772 121.030  70.086  1.00111.33      6
ATOM  17691  OG1  THR G1130      61.956 121.466  68.993  1.00112.30      8
ATOM  17692  CG2  THR G1130      62.969 122.195  71.055  1.00112.94      6
ATOM  17693  C    THR G1130      64.795 119.692  70.609  1.00 83.35      6
ATOM  17694  O    THR G1130      64.146 119.186  71.520  1.00 84.33      8
ATOM  17695  N    ARG G1131      66.108 119.544  70.460  1.00 64.02      7
ATOM  17696  CA   ARG G1131      66.956 118.741  71.334  1.00 65.04      6
ATOM  17697  CB   ARG G1131      68.240 119.503  71.674  1.00 77.20      6
ATOM  17698  CG   ARG G1131      68.967 120.133  70.496  1.00 75.94      6
ATOM  17699  CD   ARG G1131      68.374 121.490  70.138  1.00 75.39      6
ATOM  17700  NE   ARG G1131      69.361 122.378  69.527  1.00 74.87      7
ATOM  17701  CZ   ARG G1131      70.494 122.753  70.119  1.00 75.39      6
ATOM  17702  NH1  ARG G1131      70.789 122.321  71.333  1.00 75.70      7
ATOM  17703  NH2  ARG G1131      71.342 123.563  69.505  1.00 76.69      7
ATOM  17704  C    ARG G1131      66.288 118.299  72.627  1.00 66.57      6
ATOM  17705  O    ARG G1131      66.400 118.972  73.650  1.00 67.44      8
ATOM  17706  N    THR G1132      65.606 117.160  72.590  1.00110.70      7
ATOM  17707  CA   THR G1132      64.943 116.652  73.783  1.00112.07      6
ATOM  17708  CB   THR G1132      63.589 117.358  74.014  1.00142.97      6
ATOM  17709  OG1  THR G1132      63.800 118.770  74.154  1.00143.10      8
ATOM  17710  CG2  THR G1132      62.922 116.827  75.277  1.00143.32      6
ATOM  17711  C    THR G1132      64.703 115.151  73.702  1.00112.98      6
ATOM  17712  O    THR G1132      63.730 114.707  73.093  1.00114.26      8
ATOM  17713  N    LEU G1133      65.592 114.378  74.321  1.00130.03      7
ATOM  17714  CA   LEU G1133      65.485 112.923  74.327  1.00129.99      6
ATOM  17715  CB   LEU G1133      66.421 112.329  75.373  1.00113.82      6
ATOM  17716  CG   LEU G1133      67.911 112.597  75.172  1.00115.74      6
ATOM  17717  CD1  LEU G1133      68.641 112.271  76.457  1.00115.14      6
ATOM  17718  CD2  LEU G1133      68.454 111.775  74.005  1.00116.19      6
ATOM  17719  C    LEU G1133      64.063 112.492  74.634  1.00129.63      6
ATOM  17720  O    LEU G1133      63.295 113.246  75.226  1.00130.87      8
ATOM  17721  N    ARG G1134      63.720 111.273  74.237  1.00 58.57      7
ATOM  17722  CA   ARG G1134      62.381 110.747  74.463  1.00 57.49      6
ATOM  17723  CB   ARG G1134      61.524 110.974  73.213  1.00165.44      6
ATOM  17724  CG   ARG G1134      60.141 110.320  73.225  1.00167.83      6
ATOM  17725  CD   ARG G1134      59.116 111.095  74.049  1.00169.50      6
ATOM  17726  NE   ARG G1134      57.753 110.639  73.767  1.00171.23      7
ATOM  17727  CZ   ARG G1134      56.653 111.190  74.274  1.00173.32      6
ATOM  17728  NH1  ARG G1134      56.742 112.225  75.099  1.00175.05      7
ATOM  17729  NH2  ARG G1134      55.461 110.711  73.949  1.00173.72      7
ATOM  17730  C    ARG G1134      62.455 109.258  74.781  1.00 56.04      6
ATOM  17731  O    ARG G1134      63.454 108.596  74.489  1.00 56.13      8
ATOM  17732  N    LEU G1135      61.406 108.735  75.403  1.00 72.40      7
ATOM  17733  CA   LEU G1135      61.364 107.316  75.719  1.00 71.34      6
ATOM  17734  CB   LEU G1135      60.195 107.015  76.662  1.00151.60      6
ATOM  17735  CG   LEU G1135      59.601 108.189  77.455  1.00153.45      6
ATOM  17736  CD1  LEU G1135      58.546 107.668  78.419  1.00153.65      6
ATOM  17737  CD2  LEU G1135      60.688 108.921  78.224  1.00154.75      6
ATOM  17738  C    LEU G1135      61.102 106.707  74.356  1.00 69.68      6
ATOM  17739  O    LEU G1135      60.004 106.861  73.829  1.00 69.74      8
ATOM  17740  N    ARG G1136      62.105 106.052  73.772  1.00 58.02      7
ATOM  17741  CA   ARG G1136      61.961 105.445  72.440  1.00 55.77      6
ATOM  17742  CB   ARG G1136      63.115 104.473  72.182  1.00 61.16      6
ATOM  17743  CG   ARG G1136      63.512 104.323  70.726  1.00 59.77      6
```

317

```
ATOM   17744  CD   ARG G1136      64.776 103.499  70.627  1.00 59.47      6
ATOM   17745  NE   ARG G1136      65.057 103.071  69.261  1.00 58.71      7
ATOM   17746  CZ   ARG G1136      65.798 102.007  68.954  1.00 59.04      6
ATOM   17747  NH1  ARG G1136      66.330 101.265  69.917  1.00 58.01      7
ATOM   17748  NH2  ARG G1136      66.002 101.672  67.685  1.00 59.42      7
ATOM   17749  C    ARG G1136      60.623 104.722  72.389  1.00 55.16      6
ATOM   17750  O    ARG G1136      60.118 104.300  73.428  1.00 55.68      8
ATOM   17751  N    LYS G1137      60.029 104.575  71.209  1.00 61.13      7
ATOM   17752  CA   LYS G1137      58.722 103.920  71.152  1.00 60.84      6
ATOM   17753  CB   LYS G1137      58.061 104.136  69.788  1.00 57.63      6
ATOM   17754  CG   LYS G1137      58.958 103.834  68.624  1.00 59.33      6
ATOM   17755  CD   LYS G1137      58.262 104.048  67.289  1.00 61.19      6
ATOM   17756  CE   LYS G1137      59.247 103.881  66.135  1.00 62.98      6
ATOM   17757  NZ   LYS G1137      58.628 104.071  64.800  1.00 64.64      7
ATOM   17758  C    LYS G1137      58.714 102.436  71.514  1.00 60.86      6
ATOM   17759  O    LYS G1137      59.581 101.656  71.102  1.00 60.08      8
ATOM   17760  N    ARG G1138      57.715 102.079  72.315  1.00173.33      7
ATOM   17761  CA   ARG G1138      57.506 100.719  72.795  1.00174.09      6
ATOM   17762  CB   ARG G1138      56.207 100.655  73.616  1.00114.23      6
ATOM   17763  CG   ARG G1138      55.425 101.977  73.685  1.00115.53      6
ATOM   17764  CD   ARG G1138      54.776 102.332  72.353  1.00116.52      6
ATOM   17765  NE   ARG G1138      54.181 103.664  72.375  1.00118.54      7
ATOM   17766  CZ   ARG G1138      53.394 104.148  71.419  1.00119.91      6
ATOM   17767  NH1  ARG G1138      53.097 103.413  70.357  1.00119.84      7
ATOM   17768  NH2  ARG G1138      52.901 105.372  71.523  1.00120.68      7
ATOM   17769  C    ARG G1138      57.440  99.734  71.638  1.00173.24      6
ATOM   17770  O    ARG G1138      56.417  99.089  71.414  1.00175.43      8
ATOM   17771  N    SER G1139      58.544  99.621  70.909  1.00 90.68      7
ATOM   17772  CA   SER G1139      58.616  98.724  69.764  1.00 86.88      6
ATOM   17773  CB   SER G1139      57.782  99.269  68.593  1.00 36.28      6
ATOM   17774  OG   SER G1139      57.935  98.481  67.421  1.00 32.66      8
ATOM   17775  C    SER G1139      60.048  98.541  69.306  1.00 84.63      6
ATOM   17776  O    SER G1139      60.606  97.450  69.433  1.00 84.85      8
ATOM   17777  N    ASP G1140      60.638  99.614  68.777  1.00 58.25      7
ATOM   17778  CA   ASP G1140      62.006  99.562  68.270  1.00 53.75      6
ATOM   17779  CB   ASP G1140      62.511 100.959  67.959  1.00 66.26      6
ATOM   17780  CG   ASP G1140      61.431 101.847  67.418  1.00 66.48      6
ATOM   17781  OD1  ASP G1140      60.700 101.406  66.503  1.00 66.87      8
ATOM   17782  OD2  ASP G1140      61.322 102.988  67.906  1.00 67.08      8
ATOM   17783  C    ASP G1140      62.910  98.918  69.290  1.00 50.32      6
ATOM   17784  O    ASP G1140      63.761  98.102  68.948  1.00 49.17      8
ATOM   17785  N    ILE G1141      62.722  99.299  70.547  1.00 40.29      7
ATOM   17786  CA   ILE G1141      63.510  98.739  71.626  1.00 37.07      6
ATOM   17787  CB   ILE G1141      62.913  99.100  72.981  1.00 21.59      6
ATOM   17788  CG2  ILE G1141      63.772  98.520  74.096  1.00 20.43      6
ATOM   17789  CG1  ILE G1141      62.775 100.608  73.096  1.00 20.52      6
ATOM   17790  CD1  ILE G1141      62.006 101.005  74.286  1.00 23.36      6
ATOM   17791  C    ILE G1141      63.430  97.230  71.469  1.00 36.64      6
ATOM   17792  O    ILE G1141      64.448  96.548  71.339  1.00 36.06      8
ATOM   17793  N    GLU G1142      62.191  96.736  71.478  1.00 58.56      7
ATOM   17794  CA   GLU G1142      61.870  95.315  71.337  1.00 57.76      6
ATOM   17795  CB   GLU G1142      60.365  95.122  71.424  1.00 66.98      6
ATOM   17796  CG   GLU G1142      59.934  93.705  71.251  1.00 68.24      6
ATOM   17797  CD   GLU G1142      58.440  93.582  71.235  1.00 69.98      6
ATOM   17798  OE1  GLU G1142      57.799  94.063  72.193  1.00 71.80      8
ATOM   17799  OE2  GLU G1142      57.902  93.004  70.271  1.00 70.75      8
```

318

```
ATOM    17800  C    GLU  G1142      62.347  94.802  70.003  1.00  55.54       6
ATOM    17801  O    GLU  G1142      62.745  93.649  69.864  1.00  54.54       8
ATOM    17802  N    SER  G1143      62.277  95.686  69.022  1.00  45.57       7
ATOM    17803  CA   SER  G1143      62.705  95.385  67.679  1.00  42.50       6
ATOM    17804  CB   SER  G1143      62.168  96.447  66.715  1.00  23.64       6
ATOM    17805  OG   SER  G1143      61.788  95.882  65.473  1.00  20.91       8
ATOM    17806  C    SER  G1143      64.226  95.411  67.712  1.00  40.89       6
ATOM    17807  O    SER  G1143      64.878  94.874  66.828  1.00  41.57       8
ATOM    17808  N    GLY  G1144      64.783  96.023  68.753  1.00  32.49       7
ATOM    17809  CA   GLY  G1144      66.229  96.102  68.887  1.00  32.11       6
ATOM    17810  C    GLY  G1144      66.815  95.201  69.966  1.00  31.50       6
ATOM    17811  O    GLY  G1144      68.032  95.009  70.052  1.00  31.35       8
ATOM    17812  N    LEU  G1145      65.944  94.624  70.782  1.00  57.42       7
ATOM    17813  CA   LEU  G1145      66.393  93.763  71.853  1.00  55.12       6
ATOM    17814  CB   LEU  G1145      65.964  94.346  73.193  1.00  16.96       6
ATOM    17815  CG   LEU  G1145      66.481  95.743  73.548  1.00  14.26       6
ATOM    17816  CD1  LEU  G1145      65.982  96.114  74.936  1.00  13.87       6
ATOM    17817  CD2  LEU  G1145      68.001  95.775  73.492  1.00  13.87       6
ATOM    17818  C    LEU  G1145      65.906  92.328  71.752  1.00  55.41       6
ATOM    17819  O    LEU  G1145      66.695  91.396  71.897  1.00  57.87       8
ATOM    17820  N    TYR  G1146      64.614  92.137  71.504  1.00  29.27       7
ATOM    17821  CA   TYR  G1146      64.066  90.777  71.418  1.00  27.78       6
ATOM    17822  CB   TYR  G1146      62.729  90.781  70.682  1.00  21.95       6
ATOM    17823  CG   TYR  G1146      62.075  89.423  70.597  1.00  20.28       6
ATOM    17824  CD1  TYR  G1146      60.697  89.308  70.495  1.00  20.32       6
ATOM    17825  CE1  TYR  G1146      60.088  88.063  70.389  1.00  19.89       6
ATOM    17826  CD2  TYR  G1146      62.829  88.254  70.594  1.00  19.89       6
ATOM    17827  CE2  TYR  G1146      62.237  87.006  70.489  1.00  19.67       6
ATOM    17828  CZ   TYR  G1146      60.864  86.911  70.382  1.00  20.14       6
ATOM    17829  OH   TYR  G1146      60.268  85.669  70.230  1.00  19.11       8
ATOM    17830  C    TYR  G1146      64.973  89.752  70.755  1.00  28.02       6
ATOM    17831  O    TYR  G1146      65.232  89.832  69.570  1.00  28.65       8
ATOM    17832  N    GLY  G1147      65.431  88.767  71.510  1.00  44.62       7
ATOM    17833  CA   GLY  G1147      66.268  87.755  70.904  1.00  48.07       6
ATOM    17834  C    GLY  G1147      67.758  87.989  71.027  1.00  50.10       6
ATOM    17835  O    GLY  G1147      68.563  87.165  70.576  1.00  52.13       8
ATOM    17836  N    ARG  G1148      68.140  89.104  71.634  1.00  38.18       7
ATOM    17837  CA   ARG  G1148      69.550  89.407  71.819  1.00  39.55       6
ATOM    17838  CB   ARG  G1148      69.710  90.876  72.159  1.00  42.03       6
ATOM    17839  CG   ARG  G1148      69.228  91.849  71.113  1.00  42.98       6
ATOM    17840  CD   ARG  G1148      70.093  91.802  69.879  1.00  44.28       6
ATOM    17841  NE   ARG  G1148      70.036  93.067  69.161  1.00  45.14       7
ATOM    17842  CZ   ARG  G1148      70.794  93.351  68.112  1.00  45.75       6
ATOM    17843  NH1  ARG  G1148      71.668  92.454  67.659  1.00  45.83       7
ATOM    17844  NH2  ARG  G1148      70.681  94.534  67.524  1.00  45.78       7
ATOM    17845  C    ARG  G1148      70.149  88.571  72.952  1.00  40.39       6
ATOM    17846  O    ARG  G1148      69.444  87.892  73.688  1.00  40.17       8
ATOM    17847  N    VAL  G1149      71.461  88.645  73.093  1.00  29.90       7
ATOM    17848  CA   VAL  G1149      72.181  87.924  74.137  1.00  31.96       6
ATOM    17849  CB   VAL  G1149      73.099  86.832  73.479  1.00  29.71       6
ATOM    17850  CG1  VAL  G1149      74.543  86.929  73.986  1.00  28.46       6
ATOM    17851  CG2  VAL  G1149      72.508  85.443  73.727  1.00  28.35       6
ATOM    17852  C    VAL  G1149      72.989  88.984  74.911  1.00  34.86       6
ATOM    17853  O    VAL  G1149      73.950  89.553  74.386  1.00  35.46       8
ATOM    17854  N    LEU  G1150      72.587  89.271  76.147  1.00  50.78       7
ATOM    17855  CA   LEU  G1150      73.272  90.291  76.934  1.00  54.05       6
```

319

```
ATOM  17856  CB   LEU G1150    72.693  90.371  78.347  1.00 36.77    6
ATOM  17857  CG   LEU G1150    71.419  91.206  78.526  1.00 36.53    6
ATOM  17858  CD1  LEU G1150    71.212  91.485  80.010  1.00 36.78    6
ATOM  17859  CD2  LEU G1150    71.535  92.521  77.776  1.00 35.95    6
ATOM  17860  C    LEU G1150    74.776  90.099  77.006  1.00 56.56    6
ATOM  17861  O    LEU G1150    75.265  88.977  77.055  1.00 57.24    8
ATOM  17862  N    ALA G1151    75.503  91.211  77.013  1.00 68.82    7
ATOM  17863  CA   ALA G1151    76.957  91.176  77.053  1.00 71.07    6
ATOM  17864  CB   ALA G1151    77.503  91.823  75.804  1.00 36.93    6
ATOM  17865  C    ALA G1151    77.536  91.843  78.309  1.00 72.81    6
ATOM  17866  O    ALA G1151    78.667  92.361  78.319  1.00 74.07    8
ATOM  17867  N    ARG G1152    76.737  91.820  79.369  1.00 80.03    7
ATOM  17868  CA   ARG G1152    77.121  92.368  80.662  1.00 81.05    6
ATOM  17869  CB   ARG G1152    77.810  93.733  80.503  1.00120.97    6
ATOM  17870  CG   ARG G1152    79.046  93.904  81.401  1.00124.97    6
ATOM  17871  CD   ARG G1152    79.642  95.313  81.317  1.00127.44    6
ATOM  17872  NE   ARG G1152    80.720  95.525  82.285  1.00127.30    7
ATOM  17873  CZ   ARG G1152    81.319  96.694  82.505  1.00127.42    6
ATOM  17874  NH1  ARG G1152    80.956  97.779  81.831  1.00127.13    7
ATOM  17875  NH2  ARG G1152    82.285  96.784  83.407  1.00127.90    7
ATOM  17876  C    ARG G1152    75.856  92.489  81.500  1.00 79.74    6
ATOM  17877  O    ARG G1152    74.945  93.238  81.159  1.00 79.94    8
ATOM  17878  N    GLU G1153    75.811  91.720  82.582  1.00 45.10    7
ATOM  17879  CA   GLU G1153    74.679  91.689  83.498  1.00 44.26    6
ATOM  17880  CB   GLU G1153    75.180  91.307  84.879  1.00 87.58    6
ATOM  17881  CG   GLU G1153    76.115  92.330  85.467  1.00 92.13    6
ATOM  17882  CD   GLU G1153    76.857  91.795  86.663  1.00 95.17    6
ATOM  17883  OE1  GLU G1153    76.216  91.116  87.494  1.00 96.43    8
ATOM  17884  OE2  GLU G1153    78.076  92.056  86.775  1.00 97.56    8
ATOM  17885  C    GLU G1153    73.949  93.024  83.571  1.00 42.37    6
ATOM  17886  O    GLU G1153    74.583  94.066  83.575  1.00 42.38    8
ATOM  17887  N    VAL G1154    72.620  92.996  83.627  1.00 18.51    7
ATOM  17888  CA   VAL G1154    71.837  94.226  83.699  1.00 15.82    6
ATOM  17889  CB   VAL G1154    70.963  94.433  82.422  1.00 13.87    6
ATOM  17890  CG1  VAL G1154    69.832  95.439  82.693  1.00 13.87    6
ATOM  17891  CG2  VAL G1154    71.826  94.924  81.267  1.00 13.87    6
ATOM  17892  C    VAL G1154    70.921  94.187  84.903  1.00 16.07    6
ATOM  17893  O    VAL G1154    69.783  93.780  84.790  1.00 15.97    8
ATOM  17894  N    GLU G1155    71.418  94.601  86.061  1.00 38.50    7
ATOM  17895  CA   GLU G1155    70.603  94.626  87.271  1.00 39.28    6
ATOM  17896  CB   GLU G1155    71.479  94.603  88.525  1.00129.76    6
ATOM  17897  CG   GLU G1155    72.887  94.068  88.327  1.00134.02    6
ATOM  17898  CD   GLU G1155    73.847  95.129  87.828  1.00136.34    6
ATOM  17899  OE1  GLU G1155    73.929  96.202  88.465  1.00136.70    8
ATOM  17900  OE2  GLU G1155    74.529  94.891  86.807  1.00137.03    8
ATOM  17901  C    GLU G1155    69.828  95.931  87.242  1.00 38.44    6
ATOM  17902  O    GLU G1155    70.275  96.902  86.643  1.00 37.81    8
ATOM  17903  N    ALA G1156    68.673  95.950  87.891  1.00 34.56    7
ATOM  17904  CA   ALA G1156    67.836  97.139  87.941  1.00 35.23    6
ATOM  17905  CB   ALA G1156    67.807  97.830  86.600  1.00 54.56    6
ATOM  17906  C    ALA G1156    66.431  96.749  88.324  1.00 36.34    6
ATOM  17907  O    ALA G1156    66.097  95.566  88.354  1.00 36.10    8
ATOM  17908  N    LEU G1157    65.615  97.760  88.601  1.00 41.55    7
ATOM  17909  CA   LEU G1157    64.219  97.585  88.988  1.00 43.21    6
ATOM  17910  CB   LEU G1157    63.319  97.821  87.772  1.00 66.43    6
ATOM  17911  CG   LEU G1157    61.938  98.419  88.049  1.00 67.76    6
```

320

```
ATOM   17912  CD1 LEU G1157      61.384  99.005  86.764  1.00 68.31      6
ATOM   17913  CD2 LEU G1157      60.996  97.367  88.631  1.00 68.02      6
ATOM   17914  C   LEU G1157      63.961  96.206  89.586  1.00 44.00      6
ATOM   17915  O   LEU G1157      63.078  95.477  89.147  1.00 43.44      8
ATOM   17916  N   GLY G1158      64.765  95.847  90.581  1.00 57.48      7
ATOM   17917  CA  GLY G1158      64.598  94.569  91.243  1.00 59.72      6
ATOM   17918  C   GLY G1158      65.497  93.443  90.778  1.00 61.27      6
ATOM   17919  O   GLY G1158      66.308  92.925  91.558  1.00 61.87      8
ATOM   17920  N   ARG G1159      65.374  93.072  89.506  1.00 48.58      7
ATOM   17921  CA  ARG G1159      66.146  91.954  88.966  1.00 50.73      6
ATOM   17922  CB  ARG G1159      65.312  91.182  87.936  1.00101.21      6
ATOM   17923  CG  ARG G1159      63.888  90.848  88.399  1.00103.69      6
ATOM   17924  CD  ARG G1159      63.844  90.283  89.825  1.00103.94      6
ATOM   17925  NE  ARG G1159      62.476  90.060  90.294  1.00103.85      7
ATOM   17926  CZ  ARG G1159      62.158  89.753  91.547  1.00104.43      6
ATOM   17927  NH1 ARG G1159      63.105  89.636  92.466  1.00105.91      7
ATOM   17928  NH2 ARG G1159      60.894  89.550  91.881  1.00103.85      7
ATOM   17929  C   ARG G1159      67.495  92.277  88.360  1.00 51.23      6
ATOM   17930  O   ARG G1159      67.775  93.415  87.990  1.00 52.62      8
ATOM   17931  N   ARG G1160      68.332  91.246  88.294  1.00 37.06      7
ATOM   17932  CA  ARG G1160      69.666  91.333  87.718  1.00 38.02      6
ATOM   17933  CB  ARG G1160      70.740  90.960  88.743  1.00149.97      6
ATOM   17934  CG  ARG G1160      70.837  91.906  89.921  1.00154.14      6
ATOM   17935  CD  ARG G1160      72.215  91.837  90.562  1.00157.15      6
ATOM   17936  NE  ARG G1160      72.470  92.990  91.420  1.00160.00      7
ATOM   17937  CZ  ARG G1160      73.652  93.274  91.959  1.00162.29      6
ATOM   17938  NH1 ARG G1160      74.694  92.487  91.728  1.00163.57      7
ATOM   17939  NH2 ARG G1160      73.796  94.345  92.727  1.00162.30      7
ATOM   17940  C   ARG G1160      69.646  90.295  86.613  1.00 37.25      6
ATOM   17941  O   ARG G1160      69.366  89.125  86.877  1.00 36.75      8
ATOM   17942  N   LEU G1161      69.931  90.720  85.385  1.00 54.98      7
ATOM   17943  CA  LEU G1161      69.919  89.817  84.235  1.00 55.36      6
ATOM   17944  CB  LEU G1161      69.287  90.521  83.032  1.00 39.02      6
ATOM   17945  CG  LEU G1161      68.000  91.332  83.211  1.00 38.07      6
ATOM   17946  CD1 LEU G1161      67.606  91.876  81.862  1.00 37.72      6
ATOM   17947  CD2 LEU G1161      66.877  90.491  83.788  1.00 39.48      6
ATOM   17948  C   LEU G1161      71.329  89.362  83.868  1.00 55.94      6
ATOM   17949  O   LEU G1161      72.061  90.092  83.202  1.00 55.42      8
ATOM   17950  N   GLU G1162      71.697  88.152  84.290  1.00 55.76      7
ATOM   17951  CA  GLU G1162      73.029  87.615  84.023  1.00 57.35      6
ATOM   17952  CB  GLU G1162      73.070  86.108  84.302  1.00136.81      6
ATOM   17953  CG  GLU G1162      71.720  85.414  84.278  1.00139.78      6
ATOM   17954  CD  GLU G1162      71.846  83.900  84.317  1.00142.06      6
ATOM   17955  OE1 GLU G1162      71.912  83.280  83.233  1.00143.37      8
ATOM   17956  OE2 GLU G1162      71.893  83.332  85.431  1.00144.06      8
ATOM   17957  C   GLU G1162      73.518  87.893  82.605  1.00 57.20      6
ATOM   17958  O   GLU G1162      72.713  88.089  81.688  1.00 57.41      8
ATOM   17959  N   GLU G1163      74.843  87.911  82.439  1.00 38.52      7
ATOM   17960  CA  GLU G1163      75.463  88.180  81.146  1.00 37.84      6
ATOM   17961  CB  GLU G1163      76.963  88.448  81.298  1.00 95.66      6
ATOM   17962  CG  GLU G1163      77.576  89.123  80.078  1.00 98.93      6
ATOM   17963  CD  GLU G1163      78.718  88.343  79.454  1.00102.02      6
ATOM   17964  OE1 GLU G1163      79.711  88.066  80.160  1.00103.81      8
ATOM   17965  OE2 GLU G1163      78.625  88.016  78.249  1.00104.08      8
ATOM   17966  C   GLU G1163      75.270  87.005  80.221  1.00 36.30      6
ATOM   17967  O   GLU G1163      75.274  85.860  80.664  1.00 35.69      8
```

```
ATOM   17968  N    GLY G1164      75.096  87.292  78.935  1.00 72.10      7
ATOM   17969  CA   GLY G1164      74.926  86.237  77.954  1.00 71.36      6
ATOM   17970  C    GLY G1164      73.515  85.705  77.820  1.00 70.58      6
ATOM   17971  O    GLY G1164      73.186  85.055  76.837  1.00 71.82      8
ATOM   17972  N    ARG G1165      72.672  85.960  78.804  1.00 65.61      7
ATOM   17973  CA   ARG G1165      71.308  85.477  78.728  1.00 64.60      6
ATOM   17974  CB   ARG G1165      70.574  85.866  80.001  1.00143.03      6
ATOM   17975  CG   ARG G1165      69.082  85.674  79.940  1.00145.42      6
ATOM   17976  CD   ARG G1165      68.427  86.446  81.050  1.00146.39      6
ATOM   17977  NE   ARG G1165      66.979  86.364  80.984  1.00149.32      7
ATOM   17978  CZ   ARG G1165      66.175  87.024  81.804  1.00151.35      6
ATOM   17979  NH1  ARG G1165      66.691  87.809  82.738  1.00152.47      7
ATOM   17980  NH2  ARG G1165      64.862  86.894  81.700  1.00152.96      7
ATOM   17981  C    ARG G1165      70.615  86.104  77.517  1.00 62.91      6
ATOM   17982  O    ARG G1165      71.052  87.151  77.032  1.00 64.15      8
ATOM   17983  N    TYR G1166      69.553  85.464  77.019  1.00 55.02      7
ATOM   17984  CA   TYR G1166      68.783  85.999  75.887  1.00 51.39      6
ATOM   17985  CB   TYR G1166      68.379  84.912  74.902  1.00 32.01      6
ATOM   17986  CG   TYR G1166      69.454  84.068  74.241  1.00 30.78      6
ATOM   17987  CD1  TYR G1166      70.109  83.063  74.938  1.00 30.12      6
ATOM   17988  CE1  TYR G1166      70.874  82.116  74.265  1.00 28.63      6
ATOM   17989  CD2  TYR G1166      69.628  84.113  72.855  1.00 29.93      6
ATOM   17990  CE2  TYR G1166      70.384  83.177  72.190  1.00 28.19      6
ATOM   17991  CZ   TYR G1166      70.991  82.178  72.893  1.00 27.43      6
ATOM   17992  OH   TYR G1166      71.638  81.194  72.200  1.00 26.37      8
ATOM   17993  C    TYR G1166      67.468  86.587  76.412  1.00 49.63      6
ATOM   17994  O    TYR G1166      66.682  85.871  77.038  1.00 48.97      8
ATOM   17995  N    LEU G1167      67.201  87.866  76.152  1.00 38.55      7
ATOM   17996  CA   LEU G1167      65.948  88.441  76.641  1.00 36.68      6
ATOM   17997  CB   LEU G1167      66.052  89.966  76.909  1.00 18.86      6
ATOM   17998  CG   LEU G1167      66.973  91.014  76.279  1.00 17.61      6
ATOM   17999  CD1  LEU G1167      68.296  91.045  77.011  1.00 16.78      6
ATOM   18000  CD2  LEU G1167      67.137  90.737  74.818  1.00 18.49      6
ATOM   18001  C    LEU G1167      64.742  88.164  75.753  1.00 35.58      6
ATOM   18002  O    LEU G1167      64.769  88.398  74.547  1.00 35.26      8
ATOM   18003  N    SER G1168      63.684  87.654  76.375  1.00 33.21      7
ATOM   18004  CA   SER G1168      62.442  87.343  75.684  1.00 34.10      6
ATOM   18005  CB   SER G1168      61.685  86.244  76.438  1.00176.53      6
ATOM   18006  OG   SER G1168      62.478  85.080  76.596  1.00181.29      8
ATOM   18007  C    SER G1168      61.568  88.597  75.594  1.00 33.27      6
ATOM   18008  O    SER G1168      61.861  89.614  76.220  1.00 32.22      8
ATOM   18009  N    LEU G1169      60.499  88.522  74.806  1.00 24.19      7
ATOM   18010  CA   LEU G1169      59.592  89.640  74.661  1.00 23.70      6
ATOM   18011  CB   LEU G1169      58.363  89.221  73.862  1.00 36.88      6
ATOM   18012  CG   LEU G1169      57.267  90.289  73.903  1.00 36.95      6
ATOM   18013  CD1  LEU G1169      57.729  91.451  73.092  1.00 36.83      6
ATOM   18014  CD2  LEU G1169      55.948  89.772  73.365  1.00 37.16      6
ATOM   18015  C    LEU G1169      59.166  90.055  76.060  1.00 24.69      6
ATOM   18016  O    LEU G1169      58.713  91.179  76.286  1.00 25.42      8
ATOM   18017  N    GLU G1170      59.316  89.125  76.997  1.00 47.21      7
ATOM   18018  CA   GLU G1170      58.950  89.344  78.390  1.00 48.70      6
ATOM   18019  CB   GLU G1170      58.909  88.003  79.128  1.00167.86      6
ATOM   18020  CG   GLU G1170      58.327  88.046  80.535  1.00172.42      6
ATOM   18021  CD   GLU G1170      56.883  88.509  80.559  1.00175.08      6
ATOM   18022  OE1  GLU G1170      56.131  88.185  79.615  1.00176.00      8
ATOM   18023  OE2  GLU G1170      56.496  89.186  81.533  1.00178.08      8
```

322

```
ATOM  18024  C    GLU  G1170    59.970  90.255  79.034  1.00  47.97    6
ATOM  18025  O    GLU  G1170    59.609  91.177  79.758  1.00  48.43    8
ATOM  18026  N    ASP  G1171    61.247  89.995  78.765  1.00  61.02    7
ATOM  18027  CA   ASP  G1171    62.327  90.805  79.315  1.00  59.79    6
ATOM  18028  CB   ASP  G1171    63.654  90.092  79.154  1.00  43.92    6
ATOM  18029  CG   ASP  G1171    63.681  88.783  79.872  1.00  45.35    6
ATOM  18030  OD1  ASP  G1171    63.180  88.747  81.009  1.00  48.16    8
ATOM  18031  OD2  ASP  G1171    64.203  87.798  79.314  1.00  44.53    8
ATOM  18032  C    ASP  G1171    62.405  92.147  78.624  1.00  58.13    6
ATOM  18033  O    ASP  G1171    62.484  93.188  79.272  1.00  57.83    8
ATOM  18034  N    VAL  G1172    62.400  92.112  77.298  1.00  42.43    7
ATOM  18035  CA   VAL  G1172    62.435  93.329  76.503  1.00  41.13    6
ATOM  18036  CB   VAL  G1172    62.234  93.013  75.021  1.00  21.88    6
ATOM  18037  CG1  VAL  G1172    62.201  94.305  74.209  1.00  19.66    6
ATOM  18038  CG2  VAL  G1172    63.343  92.079  74.554  1.00  22.09    6
ATOM  18039  C    VAL  G1172    61.337  94.289  76.964  1.00  41.77    6
ATOM  18040  O    VAL  G1172    61.308  95.460  76.581  1.00  43.44    8
ATOM  18041  N    HIS  G1173    60.411  93.781  77.764  1.00  36.80    7
ATOM  18042  CA   HIS  G1173    59.373  94.622  78.291  1.00  38.40    6
ATOM  18043  CB   HIS  G1173    58.094  93.825  78.505  1.00 110.57    6
ATOM  18044  CG   HIS  G1173    57.371  93.523  77.231  1.00 115.58    6
ATOM  18045  CD2  HIS  G1173    57.613  93.917  75.958  1.00 117.64    6
ATOM  18046  ND1  HIS  G1173    56.241  92.734  77.179  1.00 118.90    7
ATOM  18047  CE1  HIS  G1173    55.818  92.656  75.929  1.00 119.62    6
ATOM  18048  NE2  HIS  G1173    56.633  93.366  75.168  1.00 120.13    7
ATOM  18049  C    HIS  G1173    59.961  95.131  79.591  1.00  37.73    6
ATOM  18050  O    HIS  G1173    60.161  96.333  79.731  1.00  38.45    8
ATOM  18051  N    PHE  G1174    60.292  94.229  80.517  1.00  55.21    7
ATOM  18052  CA   PHE  G1174    60.880  94.645  81.797  1.00  53.36    6
ATOM  18053  CB   PHE  G1174    61.608  93.478  82.479  1.00  44.66    6
ATOM  18054  CG   PHE  G1174    62.478  93.888  83.665  1.00  42.45    6
ATOM  18055  CD1  PHE  G1174    61.984  94.721  84.667  1.00  41.72    6
ATOM  18056  CD2  PHE  G1174    63.780  93.401  83.794  1.00  40.90    6
ATOM  18057  CE1  PHE  G1174    62.772  95.058  85.776  1.00  39.75    6
ATOM  18058  CE2  PHE  G1174    64.566  93.735  84.898  1.00  39.02    6
ATOM  18059  CZ   PHE  G1174    64.060  94.563  85.889  1.00  39.10    6
ATOM  18060  C    PHE  G1174    61.857  95.787  81.569  1.00  53.30    6
ATOM  18061  O    PHE  G1174    61.699  96.870  82.133  1.00  53.50    8
ATOM  18062  N    LEU  G1175    62.863  95.541  80.739  1.00  27.60    7
ATOM  18063  CA   LEU  G1175    63.838  96.565  80.433  1.00  26.26    6
ATOM  18064  CB   LEU  G1175    64.746  96.094  79.313  1.00  15.95    6
ATOM  18065  CG   LEU  G1175    65.808  95.147  79.835  1.00  14.06    6
ATOM  18066  CD1  LEU  G1175    66.453  94.418  78.695  1.00  15.14    6
ATOM  18067  CD2  LEU  G1175    66.827  95.938  80.618  1.00  13.87    6
ATOM  18068  C    LEU  G1175    63.134  97.857  80.037  1.00  27.85    6
ATOM  18069  O    LEU  G1175    63.455  98.926  80.539  1.00  28.80    8
ATOM  18070  N    ILE  G1176    62.168  97.773  79.140  1.00  31.20    7
ATOM  18071  CA   ILE  G1176    61.458  98.973  78.760  1.00  33.78    6
ATOM  18072  CB   ILE  G1176    60.353  98.669  77.760  1.00  20.35    6
ATOM  18073  CG2  ILE  G1176    59.263  99.730  77.839  1.00  20.02    6
ATOM  18074  CG1  ILE  G1176    60.961  98.572  76.369  1.00  19.33    6
ATOM  18075  CD1  ILE  G1176    59.943  98.477  75.274  1.00  19.69    6
ATOM  18076  C    ILE  G1176    60.840  99.643  79.978  1.00  36.85    6
ATOM  18077  O    ILE  G1176    60.769 100.866  80.039  1.00  36.89    8
ATOM  18078  N    LYS  G1177    60.384  98.855  80.945  1.00  71.25    7
ATOM  18079  CA   LYS  G1177    59.776  99.440  82.131  1.00  74.99    6
```

```
ATOM  18080  CB   LYS G1177    58.807  98.459  82.798  1.00132.30    6
ATOM  18081  CG   LYS G1177    57.395  98.552  82.234  1.00135.70    6
ATOM  18082  CD   LYS G1177    56.434  97.558  82.872  1.00137.66    6
ATOM  18083  CE   LYS G1177    55.035  97.695  82.264  1.00139.50    6
ATOM  18084  NZ   LYS G1177    54.046  96.696  82.776  1.00138.30    7
ATOM  18085  C    LYS G1177    60.811  99.916  83.122  1.00 76.49    6
ATOM  18086  O    LYS G1177    60.581 100.886  83.837  1.00 78.61    8
ATOM  18087  N    ALA G1178    61.956  99.244  83.161  1.00 51.20    7
ATOM  18088  CA   ALA G1178    63.025  99.641  84.076  1.00 51.49    6
ATOM  18089  CB   ALA G1178    64.124  98.581  84.098  1.00 19.49    6
ATOM  18090  C    ALA G1178    63.584 100.985  83.612  1.00 51.85    6
ATOM  18091  O    ALA G1178    63.987 101.822  84.414  1.00 51.20    8
ATOM  18092  N    ALA G1179    63.586 101.186  82.301  1.00 45.86    7
ATOM  18093  CA   ALA G1179    64.076 102.422  81.714  1.00 47.10    6
ATOM  18094  CB   ALA G1179    64.370 102.216  80.231  1.00141.45    6
ATOM  18095  C    ALA G1179    63.054 103.542  81.899  1.00 48.32    6
ATOM  18096  O    ALA G1179    63.306 104.690  81.515  1.00 50.16    8
ATOM  18097  N    GLU G1180    61.894 103.202  82.456  1.00 44.25    7
ATOM  18098  CA   GLU G1180    60.862 104.197  82.726  1.00 44.57    6
ATOM  18099  CB   GLU G1180    59.468 103.630  82.487  1.00 76.96    6
ATOM  18100  CG   GLU G1180    59.144 103.378  81.038  1.00 79.70    6
ATOM  18101  CD   GLU G1180    57.669 103.132  80.832  1.00 81.71    6
ATOM  18102  OE1  GLU G1180    57.091 102.348  81.616  1.00 83.04    8
ATOM  18103  OE2  GLU G1180    57.086 103.713  79.892  1.00 82.50    8
ATOM  18104  C    GLU G1180    61.034 104.567  84.194  1.00 43.84    6
ATOM  18105  O    GLU G1180    61.014 105.741  84.576  1.00 44.27    8
ATOM  18106  N    ALA G1181    61.209 103.554  85.027  1.00 74.61    7
ATOM  18107  CA   ALA G1181    61.437 103.815  86.431  1.00 74.64    6
ATOM  18108  CB   ALA G1181    61.754 102.521  87.160  1.00 98.13    6
ATOM  18109  C    ALA G1181    62.656 104.730  86.423  1.00 74.18    6
ATOM  18110  O    ALA G1181    62.783 105.625  87.248  1.00 75.56    8
ATOM  18111  N    GLY G1182    63.535 104.502  85.450  1.00 40.36    7
ATOM  18112  CA   GLY G1182    64.745 105.287  85.323  1.00 38.14    6
ATOM  18113  C    GLY G1182    65.882 104.546  85.986  1.00 37.13    6
ATOM  18114  O    GLY G1182    66.362 104.972  87.031  1.00 38.37    8
ATOM  18115  N    GLU G1183    66.295 103.423  85.393  1.00 53.62    7
ATOM  18116  CA   GLU G1183    67.394 102.608  85.924  1.00 52.00    6
ATOM  18117  CB   GLU G1183    66.843 101.406  86.707  1.00 61.14    6
ATOM  18118  CG   GLU G1183    67.517 101.211  88.064  1.00 61.51    6
ATOM  18119  CD   GLU G1183    66.596 100.603  89.133  1.00 63.38    6
ATOM  18120  OE1  GLU G1183    65.376 100.891  89.116  1.00 64.65    8
ATOM  18121  OE2  GLU G1183    67.099  99.860  90.012  1.00 62.63    8
ATOM  18122  C    GLU G1183    68.365 102.137  84.834  1.00 50.71    6
ATOM  18123  O    GLU G1183    69.439 101.633  85.149  1.00 50.20    8
ATOM  18124  N    VAL G1184    67.991 102.300  83.561  1.00 64.02    7
ATOM  18125  CA   VAL G1184    68.859 101.922  82.432  1.00 62.35    6
ATOM  18126  CB   VAL G1184    68.683 100.452  82.019  1.00 61.39    6
ATOM  18127  CG1  VAL G1184    69.889 100.011  81.190  1.00 61.64    6
ATOM  18128  CG2  VAL G1184    68.516  99.580  83.230  1.00 61.82    6
ATOM  18129  C    VAL G1184    68.566 102.760  81.180  1.00 61.52    6
ATOM  18130  O    VAL G1184    67.415 103.137  80.950  1.00 62.38    8
ATOM  18131  N    ARG G1185    69.591 103.033  80.365  1.00 23.18    7
ATOM  18132  CA   ARG G1185    69.404 103.823  79.138  1.00 21.35    6
ATOM  18133  CB   ARG G1185    70.027 105.200  79.305  1.00 34.14    6
ATOM  18134  CG   ARG G1185    69.225 106.141  80.150  1.00 32.31    6
ATOM  18135  CD   ARG G1185    69.382 107.535  79.598  1.00 31.73    6
```

324

```
ATOM  18136  NE   ARG G1185    68.282 108.409  79.976  1.00  30.59    7
ATOM  18137  CZ   ARG G1185    67.977 109.523  79.325  1.00  29.80    6
ATOM  18138  NH1  ARG G1185    68.700 109.880  78.276  1.00  29.91    7
ATOM  18139  NH2  ARG G1185    66.936 110.259  79.698  1.00  29.68    7
ATOM  18140  C    ARG G1185    69.946 103.155  77.852  1.00  21.54    6
ATOM  18141  O    ARG G1185    69.406 103.337  76.746  1.00  20.03    8
ATOM  18142  N    GLU G1186    71.037 102.414  77.990  1.00  46.36    7
ATOM  18143  CA   GLU G1186    71.595 101.683  76.868  1.00  48.61    6
ATOM  18144  CB   GLU G1186    73.061 102.036  76.637  1.00150.56     6
ATOM  18145  CG   GLU G1186    73.329 103.478  76.279  1.00156.13     6
ATOM  18146  CD   GLU G1186    74.740 103.678  75.749  1.00160.61     6
ATOM  18147  OE1  GLU G1186    75.000 103.295  74.587  1.00161.94     8
ATOM  18148  OE2  GLU G1186    75.595 104.200  76.498  1.00164.12     8
ATOM  18149  C    GLU G1186    71.489 100.246  77.366  1.00  48.64    6
ATOM  18150  O    GLU G1186    71.292 100.027  78.568  1.00  48.96    8
ATOM  18151  N    VAL G1187    71.599  99.276  76.459  1.00  27.64    7
ATOM  18152  CA   VAL G1187    71.528  97.868  76.834  1.00  26.21    6
ATOM  18153  CB   VAL G1187    70.191  97.206  76.378  1.00  17.99    6
ATOM  18154  CG1  VAL G1187    70.149  95.776  76.856  1.00  16.19    6
ATOM  18155  CG2  VAL G1187    68.976  97.966  76.938  1.00  15.76    6
ATOM  18156  C    VAL G1187    72.695  97.145  76.177  1.00  27.11    6
ATOM  18157  O    VAL G1187    72.805  97.145  74.964  1.00  26.72    8
ATOM  18158  N    PRO G1188    73.584  96.528  76.981  1.00  45.28    7
ATOM  18159  CD   PRO G1188    73.422  96.413  78.441  1.00  87.43    6
ATOM  18160  CA   PRO G1188    74.775  95.782  76.555  1.00  45.41    6
ATOM  18161  CB   PRO G1188    75.516  95.562  77.860  1.00  87.26    6
ATOM  18162  CG   PRO G1188    74.399  95.298  78.794  1.00  88.03    6
ATOM  18163  C    PRO G1188    74.384  94.463  75.909  1.00  45.11    6
ATOM  18164  O    PRO G1188    74.324  93.429  76.577  1.00  44.27    8
ATOM  18165  N    VAL G1189    74.147  94.505  74.602  1.00  18.81    7
ATOM  18166  CA   VAL G1189    73.715  93.336  73.857  1.00  19.53    6
ATOM  18167  CB   VAL G1189    72.255  93.551  73.388  1.00  54.34    6
ATOM  18168  CG1  VAL G1189    72.157  93.687  71.880  1.00  53.73    6
ATOM  18169  CG2  VAL G1189    71.418  92.442  73.904  1.00  56.33    6
ATOM  18170  C    VAL G1189    74.637  93.034  72.682  1.00  20.15    6
ATOM  18171  O    VAL G1189    75.028  93.939  71.941  1.00  19.21    8
ATOM  18172  N    ARG G1190    74.977  91.753  72.528  1.00  39.78    7
ATOM  18173  CA   ARG G1190    75.869  91.278  71.467  1.00  42.42    6
ATOM  18174  CB   ARG G1190    76.465  89.937  71.876  1.00  72.84    6
ATOM  18175  CG   ARG G1190    77.099  89.978  73.240  1.00  75.85    6
ATOM  18176  CD   ARG G1190    78.285  89.050  73.318  1.00  77.83    6
ATOM  18177  NE   ARG G1190    77.888  87.651  73.252  1.00  79.70    7
ATOM  18178  CZ   ARG G1190    78.735  86.647  73.047  1.00  81.18    6
ATOM  18179  NH1  ARG G1190    80.030  86.887  72.881  1.00  80.55    7
ATOM  18180  NH2  ARG G1190    78.287  85.399  73.018  1.00  81.76    7
ATOM  18181  C    ARG G1190    75.189  91.147  70.102  1.00  43.65    6
ATOM  18182  O    ARG G1190    74.259  90.368  69.935  1.00  44.86    8
ATOM  18183  N    SER G1191    75.677  91.889  69.118  1.00  49.48    7
ATOM  18184  CA   SER G1191    75.079  91.870  67.792  1.00  51.25    6
ATOM  18185  CB   SER G1191    74.389  93.219  67.564  1.00  46.33    6
ATOM  18186  OG   SER G1191    74.207  93.505  66.192  1.00  46.50    8
ATOM  18187  C    SER G1191    76.072  91.569  66.661  1.00  52.86    6
ATOM  18188  O    SER G1191    77.272  91.702  66.841  1.00  52.77    8
ATOM  18189  N    PRO G1192    75.573  91.132  65.487  1.00  39.77    7
ATOM  18190  CD   PRO G1192    74.166  90.756  65.249  1.00  52.04    6
ATOM  18191  CA   PRO G1192    76.383  90.807  64.310  1.00  40.60    6
```

325

```
ATOM   18192  CB  PRO G1192      75.331  90.544  63.240  1.00 51.16      6
ATOM   18193  CG  PRO G1192      74.261  89.888  64.012  1.00 51.67      6
ATOM   18194  C   PRO G1192      77.342  91.920  63.896  1.00 42.52      6
ATOM   18195  O   PRO G1192      78.437  91.646  63.389  1.00 43.76      8
ATOM   18196  N   LEU G1193      76.935  93.172  64.101  1.00 67.69      7
ATOM   18197  CA  LEU G1193      77.780  94.302  63.732  1.00 70.26      6
ATOM   18198  CB  LEU G1193      77.117  95.619  64.126  1.00 70.36      6
ATOM   18199  CG  LEU G1193      75.956  96.075  63.247  1.00 71.83      6
ATOM   18200  CD1 LEU G1193      76.070  97.571  62.996  1.00 72.04      6
ATOM   18201  CD2 LEU G1193      75.991  95.340  61.929  1.00 72.96      6
ATOM   18202  C   LEU G1193      79.173  94.229  64.351  1.00 71.54      6
ATOM   18203  O   LEU G1193      80.123  94.840  63.848  1.00 72.01      8
ATOM   18204  N   THR G1194      79.283  93.471  65.439  1.00 28.21      7
ATOM   18205  CA  THR G1194      80.535  93.293  66.151  1.00 29.10      6
ATOM   18206  CB  THR G1194      80.478  93.960  67.543  1.00 92.72      6
ATOM   18207  OG1 THR G1194      81.616  93.553  68.309  1.00 95.37      8
ATOM   18208  CG2 THR G1194      79.221  93.559  68.289  1.00 94.01      6
ATOM   18209  C   THR G1194      80.908  91.825  66.344  1.00 29.40      6
ATOM   18210  O   THR G1194      80.981  91.354  67.475  1.00 29.07      8
ATOM   18211  N   CYS G1195      81.156  91.095  65.261  1.00109.03      7
ATOM   18212  CA  CYS G1195      81.532  89.702  65.437  1.00111.64      6
ATOM   18213  CB  CYS G1195      80.381  88.790  65.059  1.00 54.80      6
ATOM   18214  SG  CYS G1195      80.333  87.402  66.156  1.00 51.20     16
ATOM   18215  C   CYS G1195      82.818  89.263  64.742  1.00114.47      6
ATOM   18216  O   CYS G1195      83.103  89.646  63.606  1.00115.34      8
ATOM   18217  N   ALA G1196      83.576  88.434  65.456  1.00107.79      7
ATOM   18218  CA  ALA G1196      84.879  87.946  65.025  1.00111.57      6
ATOM   18219  CB  ALA G1196      85.535  87.197  66.177  1.00113.65      6
ATOM   18220  C   ALA G1196      84.998  87.118  63.749  1.00113.95      6
ATOM   18221  O   ALA G1196      86.112  86.851  63.294  1.00114.22      8
ATOM   18222  N   THR G1197      83.886  86.708  63.156  1.00109.64      7
ATOM   18223  CA  THR G1197      83.993  85.914  61.939  1.00111.92      6
ATOM   18224  CB  THR G1197      83.339  84.533  62.130  1.00103.22      6
ATOM   18225  OG1 THR G1197      83.339  84.189  63.521  1.00103.44      8
ATOM   18226  CG2 THR G1197      84.112  83.471  61.351  1.00103.53      6
ATOM   18227  C   THR G1197      83.353  86.609  60.734  1.00113.33      6
ATOM   18228  O   THR G1197      82.145  86.493  60.525  1.00113.81      8
ATOM   18229  N   ALA G1198      84.156  87.327  59.944  1.00208.87      7
ATOM   18230  CA  ALA G1198      83.647  88.030  58.761  1.00208.87      6
ATOM   18231  CB  ALA G1198      84.792  88.716  58.006  1.00 46.78      6
ATOM   18232  C   ALA G1198      82.932  87.051  57.838  1.00208.87      6
ATOM   18233  O   ALA G1198      81.749  86.764  58.018  1.00208.87      8
ATOM   18234  N   TYR G1199      83.658  86.546  56.847  1.00108.37      7
ATOM   18235  CA  TYR G1199      83.104  85.585  55.900  1.00108.99      6
ATOM   18236  CB  TYR G1199      84.244  84.780  55.264  1.00 88.96      6
ATOM   18237  CG  TYR G1199      85.055  85.582  54.270  1.00 90.45      6
ATOM   18238  CD1 TYR G1199      86.376  85.252  53.986  1.00 91.36      6
ATOM   18239  CE1 TYR G1199      87.127  86.001  53.074  1.00 92.40      6
ATOM   18240  CD2 TYR G1199      84.496  86.679  53.615  1.00 90.54      6
ATOM   18241  CE2 TYR G1199      85.232  87.433  52.703  1.00 91.49      6
ATOM   18242  CZ  TYR G1199      86.549  87.094  52.437  1.00 92.07      6
ATOM   18243  OH  TYR G1199      87.279  87.864  51.551  1.00 91.83      8
ATOM   18244  C   TYR G1199      82.094  84.658  56.574  1.00108.81      6
ATOM   18245  O   TYR G1199      80.979  84.493  56.096  1.00108.02      8
ATOM   18246  N   GLY G1200      82.474  84.061  57.693  1.00208.87      7
ATOM   18247  CA  GLY G1200      81.537  83.193  58.375  1.00208.87      6
```

326

```
ATOM  18248  C    GLY G1200      80.714  83.986  59.374  1.00208.87      6
ATOM  18249  O    GLY G1200      81.183  84.251  60.476  1.00208.87      8
ATOM  18250  N    ALA G1201      79.498  84.377  59.000  1.00 97.50      7
ATOM  18251  CA   ALA G1201      78.619  85.137  59.898  1.00 96.17      6
ATOM  18252  CB   ALA G1201      77.201  85.064  59.414  1.00140.38      6
ATOM  18253  C    ALA G1201      78.688  84.602  61.319  1.00 95.56      6
ATOM  18254  O    ALA G1201      79.069  83.456  61.542  1.00 95.15      8
ATOM  18255  N    CYS G1202      78.297  85.408  62.294  1.00 66.28      7
ATOM  18256  CA   CYS G1202      78.387  84.907  63.648  1.00 65.50      6
ATOM  18257  CB   CYS G1202      78.072  85.978  64.679  1.00208.87      6
ATOM  18258  SG   CYS G1202      78.241  85.327  66.366  1.00208.87     16
ATOM  18259  C    CYS G1202      77.439  83.760  63.853  1.00 62.81      6
ATOM  18260  O    CYS G1202      76.628  83.460  62.984  1.00 62.33      8
ATOM  18261  N    ALA G1203      77.556  83.129  65.019  1.00126.53      7
ATOM  18262  CA   ALA G1203      76.720  82.003  65.408  1.00123.45      6
ATOM  18263  CB   ALA G1203      77.449  80.720  65.154  1.00102.53      6
ATOM  18264  C    ALA G1203      76.370  82.117  66.885  1.00120.96      6
ATOM  18265  O    ALA G1203      77.095  81.614  67.739  1.00121.39      8
ATOM  18266  N    LYS G1204      75.249  82.781  67.151  1.00 51.38      7
ATOM  18267  CA   LYS G1204      74.713  83.041  68.488  1.00 47.97      6
ATOM  18268  CB   LYS G1204      75.282  82.065  69.520  1.00134.40      6
ATOM  18269  CG   LYS G1204      74.639  80.688  69.465  1.00136.46      6
ATOM  18270  CD   LYS G1204      74.859  79.950  70.776  1.00136.68      6
ATOM  18271  CE   LYS G1204      73.938  78.748  70.918  1.00136.14      6
ATOM  18272  NZ   LYS G1204      74.038  78.143  72.282  1.00134.86      7
ATOM  18273  C    LYS G1204      74.897  84.494  68.967  1.00 43.96      6
ATOM  18274  O    LYS G1204      74.990  84.770  70.164  1.00 44.01      8
ATOM  18275  N    CYS G1205      74.984  85.410  68.010  1.00 66.03      7
ATOM  18276  CA   CYS G1205      75.077  86.841  68.282  1.00 61.43      6
ATOM  18277  CB   CYS G1205      76.322  87.476  67.661  1.00 68.90      6
ATOM  18278  SG   CYS G1205      77.842  87.350  68.644  1.00 66.16     16
ATOM  18279  C    CYS G1205      73.835  87.279  67.525  1.00 59.10      6
ATOM  18280  O    CYS G1205      73.209  88.299  67.816  1.00 60.26      8
ATOM  18281  N    TYR G1206      73.487  86.466  66.537  1.00 66.00      7
ATOM  18282  CA   TYR G1206      72.294  86.676  65.750  1.00 61.13      6
ATOM  18283  CB   TYR G1206      72.423  85.935  64.420  1.00 58.42      6
ATOM  18284  CG   TYR G1206      71.150  85.884  63.617  1.00 59.28      6
ATOM  18285  CD1  TYR G1206      70.737  86.966  62.853  1.00 60.28      6
ATOM  18286  CE1  TYR G1206      69.538  86.930  62.155  1.00 61.02      6
ATOM  18287  CD2  TYR G1206      70.334  84.766  63.658  1.00 60.32      6
ATOM  18288  CE2  TYR G1206      69.139  84.720  62.969  1.00 60.55      6
ATOM  18289  CZ   TYR G1206      68.745  85.801  62.222  1.00 61.51      6
ATOM  18290  OH   TYR G1206      67.547  85.761  61.553  1.00 61.96      8
ATOM  18291  C    TYR G1206      71.229  86.026  66.633  1.00 57.67      6
ATOM  18292  O    TYR G1206      70.102  85.804  66.206  1.00 58.77      8
ATOM  18293  N    GLY G1207      71.637  85.723  67.869  1.00 28.17      7
ATOM  18294  CA   GLY G1207      70.801  85.100  68.888  1.00 23.00      6
ATOM  18295  C    GLY G1207      69.319  84.936  68.629  1.00 20.12      6
ATOM  18296  O    GLY G1207      68.665  85.809  68.069  1.00 19.50      8
ATOM  18297  N    TYR G1208      68.772  83.810  69.059  1.00 16.34      7
ATOM  18298  CA   TYR G1208      67.359  83.541  68.848  1.00 13.99      6
ATOM  18299  CB   TYR G1208      66.497  84.669  69.422  1.00 27.53      6
ATOM  18300  CG   TYR G1208      65.642  84.289  70.614  1.00 25.27      6
ATOM  18301  CD1  TYR G1208      64.255  84.322  70.536  1.00 25.01      6
ATOM  18302  CE1  TYR G1208      63.469  84.034  71.636  1.00 25.68      6
ATOM  18303  CD2  TYR G1208      66.222  83.948  71.831  1.00 24.20      6
```

327

```
ATOM  18304  CE2 TYR G1208      65.448  83.653  72.943  1.00  25.21      6
ATOM  18305  CZ  TYR G1208      64.071  83.698  72.838  1.00  26.65      6
ATOM  18306  OH  TYR G1208      63.299  83.399  73.941  1.00  28.05      8
ATOM  18307  C   TYR G1208      67.054  83.405  67.365  1.00  13.87      6
ATOM  18308  O   TYR G1208      67.193  84.361  66.603  1.00  13.87      8
ATOM  18309  N   ASP G1209      66.647  82.200  66.970  1.00  43.28      7
ATOM  18310  CA  ASP G1209      66.262  81.898  65.591  1.00  42.53      6
ATOM  18311  CB  ASP G1209      65.555  80.544  65.536  1.00  31.74      6
ATOM  18312  CG  ASP G1209      65.062  80.197  64.151  1.00  31.62      6
ATOM  18313  OD1 ASP G1209      64.384  81.039  63.523  1.00  31.04      8
ATOM  18314  OD2 ASP G1209      65.350  79.070  63.694  1.00  34.00      8
ATOM  18315  C   ASP G1209      65.290  82.977  65.133  1.00  42.29      6
ATOM  18316  O   ASP G1209      65.181  83.278  63.944  1.00  43.52      8
ATOM  18317  N   LEU G1210      64.572  83.533  66.101  1.00  29.19      7
ATOM  18318  CA  LEU G1210      63.610  84.587  65.858  1.00  27.76      6
ATOM  18319  CB  LEU G1210      64.260  85.700  65.039  1.00  16.20      6
ATOM  18320  CG  LEU G1210      63.420  86.960  64.945  1.00  15.40      6
ATOM  18321  CD1 LEU G1210      63.091  87.431  66.337  1.00  15.41      6
ATOM  18322  CD2 LEU G1210      64.173  88.022  64.168  1.00  16.19      6
ATOM  18323  C   LEU G1210      62.345  84.080  65.160  1.00  27.63      6
ATOM  18324  O   LEU G1210      61.424  84.866  64.865  1.00  26.89      8
ATOM  18325  N   SER G1211      62.298  82.773  64.903  1.00  27.94      7
ATOM  18326  CA  SER G1211      61.137  82.176  64.250  1.00  27.58      6
ATOM  18327  CB  SER G1211      61.464  81.704  62.842  1.00  24.99      6
ATOM  18328  OG  SER G1211      61.427  80.288  62.798  1.00  21.95      8
ATOM  18329  C   SER G1211      60.660  80.987  65.050  1.00  28.55      6
ATOM  18330  O   SER G1211      59.543  80.511  64.865  1.00  27.88      8
ATOM  18331  N   MET G1212      61.520  80.489  65.924  1.00  57.72      7
ATOM  18332  CA  MET G1212      61.145  79.369  66.761  1.00  60.29      6
ATOM  18333  CB  MET G1212      62.089  78.182  66.538  1.00  49.27      6
ATOM  18334  CG  MET G1212      62.027  77.593  65.122  1.00  50.21      6
ATOM  18335  SD  MET G1212      62.856  75.990  64.939  1.00  51.78     16
ATOM  18336  CE  MET G1212      64.604  76.502  64.872  1.00  49.70      6
ATOM  18337  C   MET G1212      61.193  79.849  68.203  1.00  62.10      6
ATOM  18338  O   MET G1212      61.004  79.070  69.141  1.00  63.42      8
ATOM  18339  N   ALA G1213      61.432  81.151  68.359  1.00  42.54      7
ATOM  18340  CA  ALA G1213      61.502  81.775  69.671  1.00  42.28      6
ATOM  18341  CB  ALA G1213      60.118  81.860  70.271  1.00  13.87      6
ATOM  18342  C   ALA G1213      62.409  80.934  70.547  1.00  43.53      6
ATOM  18343  O   ALA G1213      62.038  80.502  71.633  1.00  44.76      8
ATOM  18344  N   ARG G1214      63.612  80.705  70.053  1.00  30.09      7
ATOM  18345  CA  ARG G1214      64.593  79.896  70.748  1.00  31.85      6
ATOM  18346  CB  ARG G1214      64.325  78.418  70.423  1.00  71.16      6
ATOM  18347  CG  ARG G1214      65.482  77.606  69.845  1.00  75.73      6
ATOM  18348  CD  ARG G1214      65.620  76.294  70.624  1.00  79.41      6
ATOM  18349  NE  ARG G1214      66.783  75.489  70.253  1.00  79.98      7
ATOM  18350  CZ  ARG G1214      67.300  74.523  71.014  1.00  80.05      6
ATOM  18351  NH1 ARG G1214      66.769  74.230  72.201  1.00  79.65      7
ATOM  18352  NH2 ARG G1214      68.349  73.839  70.581  1.00  80.23      7
ATOM  18353  C   ARG G1214      65.923  80.379  70.193  1.00  32.25      6
ATOM  18354  O   ARG G1214      65.961  81.314  69.407  1.00  31.85      8
ATOM  18355  N   PRO G1215      67.035  79.800  70.626  1.00  33.76      7
ATOM  18356  CD  PRO G1215      67.392  79.152  71.893  1.00  30.02      6
ATOM  18357  CA  PRO G1215      68.215  80.369  69.990  1.00  35.06      6
ATOM  18358  CB  PRO G1215      69.311  80.123  71.027  1.00  31.38      6
ATOM  18359  CG  PRO G1215      68.858  78.901  71.706  1.00  31.25      6
```

328

```
ATOM   18360   C    PRO  G1215        68.529  79.760  68.612  1.00  35.27       6
ATOM   18361   O    PRO  G1215        68.301  78.575  68.362  1.00  36.99       8
ATOM   18362   N    VAL  G1216        69.045  80.616  67.734  1.00  28.45       7
ATOM   18363   CA   VAL  G1216        69.442  80.298  66.366  1.00  28.73       6
ATOM   18364   CB   VAL  G1216        70.324  81.387  65.793  1.00  26.62       6
ATOM   18365   CG1  VAL  G1216        70.832  80.978  64.427  1.00  26.35       6
ATOM   18366   CG2  VAL  G1216        69.557  82.669  65.746  1.00  26.19       6
ATOM   18367   C    VAL  G1216        70.224  79.026  66.151  1.00  30.04       6
ATOM   18368   O    VAL  G1216        71.364  78.902  66.601  1.00  31.31       8
ATOM   18369   N    SER  G1217        69.633  78.101  65.410  1.00  25.13       7
ATOM   18370   CA   SER  G1217        70.310  76.859  65.118  1.00  25.66       6
ATOM   18371   CB   SER  G1217        69.321  75.859  64.526  1.00  77.20       6
ATOM   18372   OG   SER  G1217        69.969  74.633  64.230  1.00  80.87       8
ATOM   18373   C    SER  G1217        71.471  77.105  64.142  1.00  25.05       6
ATOM   18374   O    SER  G1217        71.430  78.025  63.318  1.00  26.30       8
ATOM   18375   N    ILE  G1218        72.513  76.285  64.270  1.00  19.14       7
ATOM   18376   CA   ILE  G1218        73.693  76.349  63.416  1.00  18.95       6
ATOM   18377   CB   ILE  G1218        74.800  75.403  63.915  1.00  52.29       6
ATOM   18378   CG2  ILE  G1218        75.953  75.387  62.922  1.00  52.38       6
ATOM   18379   CG1  ILE  G1218        75.299  75.846  65.285  1.00  52.07       6
ATOM   18380   CD1  ILE  G1218        76.138  77.067  65.225  1.00  51.14       6
ATOM   18381   C    ILE  G1218        73.277  75.869  62.041  1.00  19.22       6
ATOM   18382   O    ILE  G1218        72.591  74.858  61.919  1.00  18.58       8
ATOM   18383   N    GLY  G1219        73.711  76.581  61.012  1.00  39.45       7
ATOM   18384   CA   GLY  G1219        73.351  76.199  59.667  1.00  39.72       6
ATOM   18385   C    GLY  G1219        72.193  77.052  59.216  1.00  40.45       6
ATOM   18386   O    GLY  G1219        71.640  76.851  58.138  1.00  41.07       8
ATOM   18387   N    GLU  G1220        71.822  78.003  60.065  1.00  30.39       7
ATOM   18388   CA   GLU  G1220        70.740  78.935  59.783  1.00  30.60       6
ATOM   18389   CB   GLU  G1220        70.400  79.696  61.056  1.00  68.18       6
ATOM   18390   CG   GLU  G1220        69.224  80.617  60.937  1.00  72.48       6
ATOM   18391   CD   GLU  G1220        67.965  79.885  60.550  1.00  73.57       6
ATOM   18392   OE1  GLU  G1220        67.774  78.746  61.032  1.00  73.24       8
ATOM   18393   OE2  GLU  G1220        67.159  80.454  59.780  1.00  74.87       8
ATOM   18394   C    GLU  G1220        71.294  79.884  58.738  1.00  29.82       6
ATOM   18395   O    GLU  G1220        71.991  80.827  59.068  1.00  30.65       8
ATOM   18396   N    ALA  G1221        71.008  79.628  57.473  1.00  36.15       7
ATOM   18397   CA   ALA  G1221        71.538  80.476  56.413  1.00  36.74       6
ATOM   18398   CB   ALA  G1221        71.163  79.885  55.054  1.00  26.70       6
ATOM   18399   C    ALA  G1221        71.029  81.912  56.540  1.00  37.26       6
ATOM   18400   O    ALA  G1221        70.414  82.449  55.615  1.00  37.62       8
ATOM   18401   N    VAL  G1222        71.306  82.540  57.681  1.00  40.17       7
ATOM   18402   CA   VAL  G1222        70.839  83.903  57.943  1.00  41.30       6
ATOM   18403   CB   VAL  G1222        71.536  84.526  59.184  1.00  39.52       6
ATOM   18404   CG1  VAL  G1222        71.026  85.958  59.400  1.00  40.48       6
ATOM   18405   CG2  VAL  G1222        71.265  83.685  60.418  1.00  38.83       6
ATOM   18406   C    VAL  G1222        71.014  84.856  56.767  1.00  41.79       6
ATOM   18407   O    VAL  G1222        70.105  85.603  56.430  1.00  42.32       8
ATOM   18408   N    GLY  G1223        72.185  84.826  56.148  1.00  25.94       7
ATOM   18409   CA   GLY  G1223        72.436  85.708  55.036  1.00  26.56       6
ATOM   18410   C    GLY  G1223        71.166  86.043  54.291  1.00  27.30       6
ATOM   18411   O    GLY  G1223        70.644  87.156  54.412  1.00  28.59       8
ATOM   18412   N    VAL  G1224        70.651  85.070  53.541  1.00  46.12       7
ATOM   18413   CA   VAL  G1224        69.456  85.279  52.741  1.00  45.23       6
ATOM   18414   CB   VAL  G1224        69.266  84.201  51.700  1.00  45.94       6
ATOM   18415   CG1  VAL  G1224        68.407  84.743  50.590  1.00  46.95       6
```

329

ATOM	18416	CG2	VAL	G1224	70.600	83.729	51.186	1.00	45.51	6
ATOM	18417	C	VAL	G1224	68.198	85.334	53.556	1.00	44.20	6
ATOM	18418	O	VAL	G1224	67.167	85.771	53.062	1.00	46.29	8
ATOM	18419	N	VAL	G1225	68.262	84.855	54.792	1.00	20.28	7
ATOM	18420	CA	VAL	G1225	67.097	84.922	55.668	1.00	17.78	6
ATOM	18421	CB	VAL	G1225	67.167	83.925	56.822	1.00	27.15	6
ATOM	18422	CG1	VAL	G1225	65.895	83.980	57.630	1.00	27.09	6
ATOM	18423	CG2	VAL	G1225	67.399	82.536	56.282	1.00	27.80	6
ATOM	18424	C	VAL	G1225	67.173	86.307	56.273	1.00	17.91	6
ATOM	18425	O	VAL	G1225	66.409	86.640	57.179	1.00	16.87	8
ATOM	18426	N	ALA	G1226	68.121	87.099	55.762	1.00	34.77	7
ATOM	18427	CA	ALA	G1226	68.361	88.458	56.227	1.00	35.41	6
ATOM	18428	CB	ALA	G1226	69.771	88.582	56.770	1.00	35.47	6
ATOM	18429	C	ALA	G1226	68.146	89.450	55.107	1.00	35.70	6
ATOM	18430	O	ALA	G1226	67.928	90.628	55.351	1.00	36.77	8
ATOM	18431	N	ALA	G1227	68.228	88.982	53.872	1.00	40.98	7
ATOM	18432	CA	ALA	G1227	67.988	89.865	52.740	1.00	42.72	6
ATOM	18433	CB	ALA	G1227	68.731	89.369	51.513	1.00	60.17	6
ATOM	18434	C	ALA	G1227	66.474	89.844	52.501	1.00	43.37	6
ATOM	18435	O	ALA	G1227	65.833	90.890	52.433	1.00	44.26	8
ATOM	18436	N	GLU	G1228	65.905	88.646	52.397	1.00	26.42	7
ATOM	18437	CA	GLU	G1228	64.484	88.498	52.189	1.00	26.29	6
ATOM	18438	CB	GLU	G1228	64.089	87.041	52.355	1.00	30.18	6
ATOM	18439	CG	GLU	G1228	64.838	86.122	51.410	1.00	35.78	6
ATOM	18440	CD	GLU	G1228	64.256	84.727	51.338	1.00	39.43	6
ATOM	18441	OE1	GLU	G1228	64.268	84.026	52.373	1.00	41.42	8
ATOM	18442	OE2	GLU	G1228	63.786	84.335	50.243	1.00	43.56	8
ATOM	18443	C	GLU	G1228	63.767	89.352	53.206	1.00	26.75	6
ATOM	18444	O	GLU	G1228	63.012	90.238	52.843	1.00	27.89	8
ATOM	18445	N	SER	G1229	64.018	89.100	54.486	1.00	28.76	7
ATOM	18446	CA	SER	G1229	63.379	89.860	55.558	1.00	30.26	6
ATOM	18447	CB	SER	G1229	64.133	89.685	56.873	1.00	58.30	6
ATOM	18448	OG	SER	G1229	63.868	88.427	57.453	1.00	59.97	8
ATOM	18449	C	SER	G1229	63.326	91.332	55.233	1.00	31.99	6
ATOM	18450	O	SER	G1229	62.278	91.953	55.284	1.00	33.06	8
ATOM	18451	N	ILE	G1230	64.471	91.894	54.899	1.00	22.94	7
ATOM	18452	CA	ILE	G1230	64.537	93.301	54.584	1.00	26.92	6
ATOM	18453	CB	ILE	G1230	65.997	93.785	54.575	1.00	52.11	6
ATOM	18454	CG2	ILE	G1230	66.037	95.296	54.369	1.00	52.92	6
ATOM	18455	CG1	ILE	G1230	66.694	93.370	55.877	1.00	52.92	6
ATOM	18456	CD1	ILE	G1230	68.165	93.726	55.938	1.00	53.75	6
ATOM	18457	C	ILE	G1230	63.922	93.617	53.229	1.00	28.48	6
ATOM	18458	O	ILE	G1230	63.670	94.766	52.928	1.00	30.31	8
ATOM	18459	N	GLY	G1231	63.664	92.610	52.411	1.00	37.73	7
ATOM	18460	CA	GLY	G1231	63.128	92.884	51.089	1.00	40.38	6
ATOM	18461	C	GLY	G1231	61.656	92.643	50.830	1.00	42.90	6
ATOM	18462	O	GLY	G1231	61.122	93.149	49.847	1.00	43.23	8
ATOM	18463	N	GLU	G1232	61.003	91.847	51.668	1.00	47.02	7
ATOM	18464	CA	GLU	G1232	59.579	91.609	51.491	1.00	51.50	6
ATOM	18465	CB	GLU	G1232	59.086	90.475	52.396	1.00	199.28	6
ATOM	18466	CG	GLU	G1232	57.595	90.190	52.263	1.00	204.27	6
ATOM	18467	CD	GLU	G1232	56.882	90.144	53.602	1.00	207.53	6
ATOM	18468	OE1	GLU	G1232	57.299	89.355	54.479	1.00	208.87	8
ATOM	18469	OE2	GLU	G1232	55.898	90.895	53.776	1.00	208.87	8
ATOM	18470	C	GLU	G1232	58.901	92.926	51.873	1.00	52.75	6
ATOM	18471	O	GLU	G1232	58.267	93.576	51.034	1.00	53.88	8

```
ATOM   18472  N    PRO G1233      59.039  93.354  53.141  1.00  55.76    7
ATOM   18473  CD   PRO G1233      59.754  92.757  54.284  1.00  99.43    6
ATOM   18474  CA   PRO G1233      58.407  94.614  53.533  1.00  56.78    6
ATOM   18475  CB   PRO G1233      58.981  94.851  54.919  1.00 100.11    6
ATOM   18476  CG   PRO G1233      59.121  93.456  55.453  1.00  99.64    6
ATOM   18477  C    PRO G1233      58.776  95.723  52.543  1.00  56.76    6
ATOM   18478  O    PRO G1233      58.176  96.792  52.527  1.00  57.07    8
ATOM   18479  N    GLY G1234      59.775  95.452  51.718  1.00  47.53    7
ATOM   18480  CA   GLY G1234      60.191  96.423  50.734  1.00  50.03    6
ATOM   18481  C    GLY G1234      59.154  96.573  49.641  1.00  51.01    6
ATOM   18482  O    GLY G1234      59.370  97.283  48.657  1.00  51.04    8
ATOM   18483  N    THR G1235      58.023  95.900  49.798  1.00 102.30    7
ATOM   18484  CA   THR G1235      56.971  95.994  48.803  1.00 104.55    6
ATOM   18485  CB   THR G1235      56.427  94.601  48.455  1.00  95.64    6
ATOM   18486  OG1  THR G1235      57.521  93.750  48.089  1.00  96.80    8
ATOM   18487  CG2  THR G1235      55.460  94.682  47.284  1.00  96.40    6
ATOM   18488  C    THR G1235      55.874  96.880  49.377  1.00 104.60    6
ATOM   18489  O    THR G1235      54.697  96.746  49.049  1.00 105.19    8
ATOM   18490  N    GLN G1236      56.291  97.795  50.243  1.00 131.07    7
ATOM   18491  CA   GLN G1236      55.382  98.727  50.884  1.00 131.35    6
ATOM   18492  CB   GLN G1236      54.976  98.221  52.262  1.00 101.39    6
ATOM   18493  CG   GLN G1236      54.507  96.791  52.313  1.00 100.77    6
ATOM   18494  CD   GLN G1236      54.127  96.403  53.716  1.00 100.20    6
ATOM   18495  OE1  GLN G1236      54.941  96.481  54.634  1.00  98.99    8
ATOM   18496  NE2  GLN G1236      52.880  95.995  53.899  1.00 101.11    7
ATOM   18497  C    GLN G1236      56.103 100.050  51.050  1.00 131.57    6
ATOM   18498  O    GLN G1236      56.101 100.631  52.135  1.00 131.80    8
ATOM   18499  N    LEU G1237      56.730 100.521  49.979  1.00  68.64    7
ATOM   18500  CA   LEU G1237      57.460 101.782  50.028  1.00  68.64    6
ATOM   18501  CB   LEU G1237      58.947 101.514  50.216  1.00  28.36    6
ATOM   18502  CG   LEU G1237      59.410 100.516  51.267  1.00  27.11    6
ATOM   18503  CD1  LEU G1237      60.925 100.605  51.322  1.00  26.70    6
ATOM   18504  CD2  LEU G1237      58.805 100.801  52.635  1.00  25.91    6
ATOM   18505  C    LEU G1237      57.284 102.625  48.772  1.00  70.01    6
ATOM   18506  O    LEU G1237      57.446 102.132  47.656  1.00  70.65    8
ATOM   18507  N    THR G1238      56.968 103.901  48.956  1.00  95.54    7
ATOM   18508  CA   THR G1238      56.800 104.809  47.827  1.00  97.27    6
ATOM   18509  CB   THR G1238      56.745 106.267  48.306  1.00 120.99    6
ATOM   18510  OG1  THR G1238      55.718 106.402  49.298  1.00 120.97    8
ATOM   18511  CG2  THR G1238      56.456 107.201  47.137  1.00 121.01    6
ATOM   18512  C    THR G1238      57.988 104.634  46.876  1.00  98.11    6
ATOM   18513  O    THR G1238      59.052 104.171  47.289  1.00  98.67    8
ATOM   18514  N    MET G1239      57.815 105.002  45.611  1.00  90.25    7
ATOM   18515  CA   MET G1239      58.894 104.838  44.644  1.00  91.46    6
ATOM   18516  CB   MET G1239      58.542 103.713  43.669  1.00  80.46    6
ATOM   18517  CG   MET G1239      59.572 103.454  42.572  1.00  80.17    6
ATOM   18518  SD   MET G1239      61.150 102.780  43.144  1.00  79.14   16
ATOM   18519  CE   MET G1239      62.270 104.163  42.830  1.00  79.80    6
ATOM   18520  C    MET G1239      59.209 106.105  43.867  1.00  92.59    6
ATOM   18521  O    MET G1239      60.097 106.112  43.010  1.00  92.57    8
ATOM   18522  N    ALA G1240      58.492 107.181  44.172  1.00 165.07    7
ATOM   18523  CA   ALA G1240      58.703 108.443  43.476  1.00 166.48    6
ATOM   18524  CB   ALA G1240      57.382 108.952  42.921  1.00 169.27    6
ATOM   18525  C    ALA G1240      59.344 109.522  44.335  1.00 166.70    6
ATOM   18526  O    ALA G1240      59.209 109.528  45.559  1.00 166.35    8
ATOM   18527  N    ALA G1241      60.045 110.437  43.677  1.00 131.55    7
```

331

```
ATOM  18528  CA   ALA G1241      60.687 111.539  44.370  1.00132.39      6
ATOM  18529  CB   ALA G1241      62.043 111.836  43.743  1.00177.09      6
ATOM  18530  C    ALA G1241      59.760 112.741  44.232  1.00133.05      6
ATOM  18531  O    ALA G1241      58.839 112.671  43.385  1.00133.52      8
ATOM  18532  OXT  ALA G1241      59.963 113.732  44.966  1.00178.77      8
ATOM  18533  C    GLY M1250      63.645 118.570  53.899  1.00135.19      6
ATOM  18534  O    GLY M1250      64.510 119.354  53.505  1.00135.32      8
ATOM  18535  N    GLY M1250      61.507 119.633  54.623  1.00135.29      7
ATOM  18536  CA   GLY M1250      62.745 118.934  55.062  1.00135.34      6
ATOM  18537  N    THR M1251      63.438 117.379  53.347  1.00165.37      7
ATOM  18538  CA   THR M1251      64.232 116.894  52.223  1.00164.97      6
ATOM  18539  CB   THR M1251      65.724 116.718  52.622  1.00135.22      6
ATOM  18540  OG1  THR M1251      66.439 117.928  52.342  1.00136.14      8
ATOM  18541  CG2  THR M1251      66.370 115.564  51.862  1.00134.02      6
ATOM  18542  C    THR M1251      63.703 115.564  51.710  1.00164.45      6
ATOM  18543  O    THR M1251      63.640 114.588  52.457  1.00165.00      8
ATOM  18544  N    ASP M1252      63.320 115.534  50.434  1.00140.34      7
ATOM  18545  CA   ASP M1252      62.817 114.310  49.816  1.00138.24      6
ATOM  18546  CB   ASP M1252      62.416 114.544  48.352  1.00 81.45      6
ATOM  18547  CG   ASP M1252      61.132 115.342  48.206  1.00 79.98      6
ATOM  18548  OD1  ASP M1252      60.111 114.970  48.821  1.00 78.97      8
ATOM  18549  OD2  ASP M1252      61.143 116.337  47.454  1.00 78.82      8
ATOM  18550  C    ASP M1252      63.915 113.255  49.861  1.00137.69      6
ATOM  18551  O    ASP M1252      64.943 113.447  50.513  1.00138.06      8
ATOM  18552  N    ILE M1253      63.698 112.149  49.153  1.00 78.27      7
ATOM  18553  CA   ILE M1253      64.657 111.051  49.116  1.00 76.99      6
ATOM  18554  CB   ILE M1253      66.058 111.538  48.705  1.00150.94      6
ATOM  18555  CG2  ILE M1253      67.068 110.455  48.972  1.00150.19      6
ATOM  18556  CG1  ILE M1253      66.060 111.943  47.227  1.00151.66      6
ATOM  18557  CD1  ILE M1253      67.401 112.440  46.716  1.00152.48      6
ATOM  18558  C    ILE M1253      64.723 110.448  50.506  1.00 75.67      6
ATOM  18559  O    ILE M1253      64.930 109.247  50.677  1.00 75.98      8
ATOM  18560  N    THR M1254      64.548 111.311  51.497  1.00 94.13      7
ATOM  18561  CA   THR M1254      64.542 110.910  52.890  1.00 92.70      6
ATOM  18562  CB   THR M1254      64.702 112.154  53.831  1.00 85.16      6
ATOM  18563  OG1  THR M1254      65.892 112.880  53.489  1.00 83.56      8
ATOM  18564  CG2  THR M1254      64.806 111.721  55.279  1.00 85.77      6
ATOM  18565  C    THR M1254      63.160 110.266  53.063  1.00 91.19      6
ATOM  18566  O    THR M1254      62.555 110.320  54.133  1.00 91.52      8
ATOM  18567  N    GLN M1255      62.675 109.656  51.982  1.00 65.57      7
ATOM  18568  CA   GLN M1255      61.372 109.011  51.969  1.00 62.64      6
ATOM  18569  CB   GLN M1255      60.315 109.979  51.442  1.00146.40      6
ATOM  18570  CG   GLN M1255      60.056 111.181  52.319  1.00148.22      6
ATOM  18571  CD   GLN M1255      59.021 112.101  51.712  1.00149.95      6
ATOM  18572  OE1  GLN M1255      57.926 111.668  51.360  1.00150.11      8
ATOM  18573  NE2  GLN M1255      59.361 113.377  51.587  1.00152.05      7
ATOM  18574  C    GLN M1255      61.304 107.737  51.129  1.00 59.98      6
ATOM  18575  O    GLN M1255      61.989 107.595  50.113  1.00 60.25      8
ATOM  18576  N    GLY M1256      60.453 106.818  51.578  1.00 87.11      7
ATOM  18577  CA   GLY M1256      60.222 105.561  50.883  1.00 81.72      6
ATOM  18578  C    GLY M1256      61.389 104.677  50.505  1.00 77.98      6
ATOM  18579  O    GLY M1256      62.517 104.871  50.948  1.00 77.97      8
ATOM  18580  N    LEU M1257      61.086 103.693  49.667  1.00 63.28      7
ATOM  18581  CA   LEU M1257      62.063 102.727  49.195  1.00 59.66      6
ATOM  18582  CB   LEU M1257      61.394 101.738  48.230  1.00 66.92      6
ATOM  18583  CG   LEU M1257      62.275 100.661  47.595  1.00 67.71      6
```

332

```
ATOM    18584   CD1  LEU M1257      63.040   99.906   48.667   1.00  69.39        6
ATOM    18585   CD2  LEU M1257      61.412   99.716   46.793   1.00  68.69        6
ATOM    18586   C    LEU M1257      63.282  103.357   48.528   1.00  56.45        6
ATOM    18587   O    LEU M1257      64.404  102.878   48.697   1.00  57.55        8
ATOM    18588   N    PRO M1258      63.089  104.439   47.762   1.00  19.94        7
ATOM    18589   CD   PRO M1258      61.880  105.163   47.348   1.00  15.83        6
ATOM    18590   CA   PRO M1258      64.274  105.018   47.135   1.00  17.31        6
ATOM    18591   CB   PRO M1258      63.720  106.248   46.448   1.00  14.49        6
ATOM    18592   CG   PRO M1258      62.347  105.820   46.081   1.00  14.23        6
ATOM    18593   C    PRO M1258      65.343  105.342   48.174   1.00  15.47        6
ATOM    18594   O    PRO M1258      66.536  105.334   47.871   1.00  14.86        8
ATOM    18595   N    ARG M1259      64.915  105.626   49.402   1.00  38.68        7
ATOM    18596   CA   ARG M1259      65.865  105.922   50.462   1.00  38.22        6
ATOM    18597   CB   ARG M1259      65.207  106.649   51.628   1.00  57.23        6
ATOM    18598   CG   ARG M1259      66.203  106.853   52.745   1.00  58.34        6
ATOM    18599   CD   ARG M1259      65.911  108.044   53.623   1.00  57.68        6
ATOM    18600   NE   ARG M1259      67.073  108.386   54.445   1.00  58.11        7
ATOM    18601   CZ   ARG M1259      68.235  108.806   53.952   1.00  58.58        6
ATOM    18602   NH1  ARG M1259      68.405  108.940   52.643   1.00  58.25        7
ATOM    18603   NH2  ARG M1259      69.233  109.090   54.768   1.00  58.51        7
ATOM    18604   C    ARG M1259      66.475  104.628   50.968   1.00  37.61        6
ATOM    18605   O    ARG M1259      67.696  104.481   51.009   1.00  37.32        8
ATOM    18606   N    VAL M1260      65.620  103.689   51.353   1.00  32.94        7
ATOM    18607   CA   VAL M1260      66.092  102.404   51.831   1.00  32.40        6
ATOM    18608   CB   VAL M1260      64.979  101.356   51.885   1.00  23.47        6
ATOM    18609   CG1  VAL M1260      65.369  100.298   52.871   1.00  23.67        6
ATOM    18610   CG2  VAL M1260      63.652  101.979   52.240   1.00  21.57        6
ATOM    18611   C    VAL M1260      67.158  101.884   50.868   1.00  33.31        6
ATOM    18612   O    VAL M1260      68.000  101.080   51.246   1.00  34.63        8
ATOM    18613   N    ILE M1261      67.101  102.319   49.614   1.00  42.94        7
ATOM    18614   CA   ILE M1261      68.094  101.914   48.627   1.00  43.12        6
ATOM    18615   CB   ILE M1261      67.543  102.059   47.170   1.00  27.14        6
ATOM    18616   CG2  ILE M1261      68.630  102.609   46.208   1.00  25.72        6
ATOM    18617   CG1  ILE M1261      67.006  100.711   46.689   1.00  28.42        6
ATOM    18618   CD1  ILE M1261      68.076   99.636   46.488   1.00  31.25        6
ATOM    18619   C    ILE M1261      69.302  102.831   48.813   1.00  43.58        6
ATOM    18620   O    ILE M1261      70.411  102.368   49.095   1.00  43.96        8
ATOM    18621   N    GLU M1262      69.064  104.133   48.669   1.00  36.27        7
ATOM    18622   CA   GLU M1262      70.100  105.146   48.796   1.00  34.97        6
ATOM    18623   CB   GLU M1262      69.445  106.524   48.929   1.00  26.80        6
ATOM    18624   CG   GLU M1262      70.393  107.671   49.294   1.00  24.59        6
ATOM    18625   CD   GLU M1262      69.711  109.048   49.269   1.00  23.28        6
ATOM    18626   OE1  GLU M1262      69.557  109.607   48.165   1.00  20.64        8
ATOM    18627   OE2  GLU M1262      69.328  109.573   50.345   1.00  20.75        8
ATOM    18628   C    GLU M1262      71.044  104.880   49.961   1.00  35.19        6
ATOM    18629   O    GLU M1262      72.245  105.158   49.862   1.00  34.77        8
ATOM    18630   N    LEU M1263      70.501  104.334   51.053   1.00  34.38        7
ATOM    18631   CA   LEU M1263      71.300  104.027   52.250   1.00  34.87        6
ATOM    18632   CB   LEU M1263      70.418  103.894   53.503   1.00  32.86        6
ATOM    18633   CG   LEU M1263      70.050  105.191   54.235   1.00  32.29        6
ATOM    18634   CD1  LEU M1263      69.261  106.073   53.304   1.00  32.18        6
ATOM    18635   CD2  LEU M1263      69.249  104.894   55.490   1.00  32.41        6
ATOM    18636   C    LEU M1263      72.098  102.755   52.071   1.00  35.00        6
ATOM    18637   O    LEU M1263      73.320  102.773   52.141   1.00  35.89        8
ATOM    18638   N    PHE M1264      71.408  101.647   51.855   1.00  36.63        7
ATOM    18639   CA   PHE M1264      72.086  100.387   51.639   1.00  38.06        6
```

333

```
ATOM   18640   CB    PHE  M1264      71.101   99.370   51.078   1.00  33.57      6
ATOM   18641   CG    PHE  M1264      70.324   98.647   52.123   1.00  31.87      6
ATOM   18642   CD1   PHE  M1264      69.067   98.145   51.839   1.00  31.56      6
ATOM   18643   CD2   PHE  M1264      70.865   98.429   53.379   1.00  31.81      6
ATOM   18644   CE1   PHE  M1264      68.356   97.437   52.783   1.00  31.35      6
ATOM   18645   CE2   PHE  M1264      70.167   97.721   54.336   1.00  31.51      6
ATOM   18646   CZ    PHE  M1264      68.910   97.223   54.039   1.00  31.65      6
ATOM   18647   C     PHE  M1264      73.218  100.610   50.643   1.00  41.11      6
ATOM   18648   O     PHE  M1264      74.280   99.991   50.736   1.00  42.16      8
ATOM   18649   N     GLU  M1265      72.982  101.526   49.708   1.00  56.57      7
ATOM   18650   CA    GLU  M1265      73.947  101.834   48.667   1.00  58.00      6
ATOM   18651   CB    GLU  M1265      73.203  102.235   47.400   1.00  60.16      6
ATOM   18652   CG    GLU  M1265      73.947  101.861   46.157   1.00  61.97      6
ATOM   18653   CD    GLU  M1265      74.040  100.370   46.003   1.00  63.74      6
ATOM   18654   OE1   GLU  M1265      73.115   99.789   45.394   1.00  64.22      8
ATOM   18655   OE2   GLU  M1265      75.026   99.786   46.507   1.00  64.82      8
ATOM   18656   C     GLU  M1265      74.975  102.911   49.021   1.00  58.20      6
ATOM   18657   O     GLU  M1265      76.126  102.828   48.601   1.00  59.28      8
ATOM   18658   N     ALA  M1266      74.563  103.928   49.770   1.00  34.07      7
ATOM   18659   CA    ALA  M1266      75.477  104.997   50.174   1.00  34.49      6
ATOM   18660   CB    ALA  M1266      76.760  104.403   50.737   1.00  15.71      6
ATOM   18661   C     ALA  M1266      75.814  105.935   49.031   1.00  34.66      6
ATOM   18662   O     ALA  M1266      76.415  105.517   48.046   1.00  33.92      8
ATOM   18663   N     ARG  M1267      75.436  107.205   49.183   1.00  20.97      7
ATOM   18664   CA    ARG  M1267      75.675  108.251   48.176   1.00  22.91      6
ATOM   18665   CB    ARG  M1267      74.741  108.084   46.977   1.00  82.15      6
ATOM   18666   CG    ARG  M1267      75.058  106.924   46.081   1.00  85.87      6
ATOM   18667   CD    ARG  M1267      73.828  106.517   45.311   1.00  88.20      6
ATOM   18668   NE    ARG  M1267      74.045  105.280   44.577   1.00  90.48      7
ATOM   18669   CZ    ARG  M1267      73.069  104.471   44.189   1.00  91.44      6
ATOM   18670   NH1   ARG  M1267      71.808  104.772   44.471   1.00  92.06      7
ATOM   18671   NH2   ARG  M1267      73.357  103.361   43.525   1.00  92.25      7
ATOM   18672   C     ARG  M1267      75.455  109.644   48.735   1.00  22.51      6
ATOM   18673   O     ARG  M1267      75.015  109.811   49.855   1.00  20.90      8
ATOM   18674   N     ARG  M1268      75.752  110.634   47.914   1.00  37.10      7
ATOM   18675   CA    ARG  M1268      75.599  112.033   48.271   1.00  40.41      6
ATOM   18676   CB    ARG  M1268      76.660  112.843   47.515   1.00  77.67      6
ATOM   18677   CG    ARG  M1268      76.702  114.329   47.824   1.00  79.69      6
ATOM   18678   CD    ARG  M1268      77.613  114.667   49.010   1.00  82.36      6
ATOM   18679   NE    ARG  M1268      77.808  116.115   49.132   1.00  85.06      7
ATOM   18680   CZ    ARG  M1268      78.622  116.701   50.005   1.00  85.75      6
ATOM   18681   NH1   ARG  M1268      79.332  115.970   50.852   1.00  87.35      7
ATOM   18682   NH2   ARG  M1268      78.733  118.022   50.021   1.00  84.62      7
ATOM   18683   C     ARG  M1268      74.174  112.480   47.878   1.00  41.76      6
ATOM   18684   O     ARG  M1268      73.990  113.251   46.939   1.00  43.93      8
ATOM   18685   N     PRO  M1269      73.152  112.019   48.617   1.00  61.56      7
ATOM   18686   CD    PRO  M1269      73.394  111.513   49.971   1.00  19.49      6
ATOM   18687   CA    PRO  M1269      71.715  112.276   48.458   1.00  61.86      6
ATOM   18688   CB    PRO  M1269      71.133  111.631   49.686   1.00  20.65      6
ATOM   18689   CG    PRO  M1269      72.167  111.953   50.678   1.00  19.82      6
ATOM   18690   C     PRO  M1269      71.267  113.722   48.374   1.00  62.20      6
ATOM   18691   O     PRO  M1269      72.081  114.643   48.362   1.00  63.87      8
ATOM   18692   N     LYS  M1270      69.947  113.900   48.355   1.00  64.12      7
ATOM   18693   CA    LYS  M1270      69.346  115.224   48.279   1.00  63.81      6
ATOM   18694   CB    LYS  M1270      67.819  115.139   48.375   1.00  92.45      6
ATOM   18695   CG    LYS  M1270      67.130  116.503   48.360   1.00  93.83      6
```

334

```
ATOM   18696  CD   LYS M1270      65.647 116.411  48.686  1.00 94.46      6
ATOM   18697  CE   LYS M1270      65.036 117.802  48.806  1.00 95.14      6
ATOM   18698  NZ   LYS M1270      63.612 117.811  49.256  1.00 96.33      7
ATOM   18699  C    LYS M1270      69.864 116.137  49.388  1.00 62.75      6
ATOM   18700  O    LYS M1270      70.511 117.154  49.121  1.00 62.13      8
ATOM   18701  N    ALA M1271      69.582 115.772  50.632  1.00 34.64      7
ATOM   18702  CA   ALA M1271      70.014 116.572  51.770  1.00 31.35      6
ATOM   18703  CB   ALA M1271      69.802 115.787  53.051  1.00 47.33      6
ATOM   18704  C    ALA M1271      71.462 117.039  51.692  1.00 29.53      6
ATOM   18705  O    ALA M1271      71.730 118.229  51.579  1.00 28.66      8
ATOM   18706  N    ALA M1272      72.388 116.089  51.753  1.00 45.65      7
ATOM   18707  CA   ALA M1272      73.813 116.392  51.727  1.00 45.37      6
ATOM   18708  CB   ALA M1272      74.160 117.172  50.470  1.00 44.00      6
ATOM   18709  C    ALA M1272      74.136 117.210  52.986  1.00 44.52      6
ATOM   18710  O    ALA M1272      75.193 117.831  53.094  1.00 43.90      8
ATOM   18711  N    ALA M1273      73.203 117.178  53.934  1.00 36.55      7
ATOM   18712  CA   ALA M1273      73.306 117.878  55.214  1.00 36.06      6
ATOM   18713  CB   ALA M1273      72.439 117.150  56.258  1.00 37.25      6
ATOM   18714  C    ALA M1273      74.738 117.984  55.717  1.00 35.72      6
ATOM   18715  O    ALA M1273      75.290 116.991  56.171  1.00 36.51      8
ATOM   18716  N    VAL M1274      75.335 119.176  55.660  1.00 36.79      7
ATOM   18717  CA   VAL M1274      76.725 119.351  56.121  1.00 37.99      6
ATOM   18718  CB   VAL M1274      77.232 120.821  56.015  1.00 53.09      6
ATOM   18719  CG1  VAL M1274      78.654 120.805  55.484  1.00 54.50      6
ATOM   18720  CG2  VAL M1274      76.340 121.665  55.118  1.00 53.07      6
ATOM   18721  C    VAL M1274      76.942 118.893  57.563  1.00 37.44      6
ATOM   18722  O    VAL M1274      76.051 119.008  58.409  1.00 37.19      8
ATOM   18723  N    ILE M1275      78.140 118.382  57.839  1.00 35.91      7
ATOM   18724  CA   ILE M1275      78.459 117.873  59.168  1.00 38.90      6
ATOM   18725  CB   ILE M1275      78.560 116.324  59.158  1.00 62.31      6
ATOM   18726  CG2  ILE M1275      77.233 115.727  59.584  1.00 63.25      6
ATOM   18727  CG1  ILE M1275      78.937 115.812  57.760  1.00 63.17      6
ATOM   18728  CD1  ILE M1275      80.242 116.339  57.229  1.00 64.53      6
ATOM   18729  C    ILE M1275      79.735 118.432  59.758  1.00 38.86      6
ATOM   18730  O    ILE M1275      80.831 118.168  59.260  1.00 38.84      8
ATOM   18731  N    SER M1276      79.590 119.196  60.835  1.00 24.22      7
ATOM   18732  CA   SER M1276      80.741 119.806  61.491  1.00 26.41      6
ATOM   18733  CB   SER M1276      80.362 120.285  62.893  1.00 91.16      6
ATOM   18734  OG   SER M1276      81.423 121.009  63.487  1.00 95.56      8
ATOM   18735  C    SER M1276      81.914 118.827  61.568  1.00 26.43      6
ATOM   18736  O    SER M1276      81.778 117.718  62.080  1.00 25.83      8
ATOM   18737  N    GLU M1277      83.061 119.245  61.041  1.00 35.97      7
ATOM   18738  CA   GLU M1277      84.258 118.416  61.037  1.00 38.59      6
ATOM   18739  CB   GLU M1277      85.144 118.815  59.858  1.00 90.83      6
ATOM   18740  CG   GLU M1277      84.360 119.071  58.581  1.00 93.32      6
ATOM   18741  CD   GLU M1277      85.250 119.222  57.364  1.00 95.17      6
ATOM   18742  OE1  GLU M1277      84.763 119.743  56.341  1.00 98.25      8
ATOM   18743  OE2  GLU M1277      86.431 118.816  57.427  1.00 95.08      8
ATOM   18744  C    GLU M1277      85.040 118.524  62.357  1.00 39.76      6
ATOM   18745  O    GLU M1277      85.962 117.750  62.606  1.00 39.25      8
ATOM   18746  N    ILE M1278      84.664 119.485  63.196  1.00 59.13      7
ATOM   18747  CA   ILE M1278      85.308 119.669  64.492  1.00 60.77      6
ATOM   18748  CB   ILE M1278      85.733 121.111  64.743  1.00 48.99      6
ATOM   18749  CG2  ILE M1278      86.689 121.154  65.914  1.00 49.48      6
ATOM   18750  CG1  ILE M1278      86.393 121.702  63.516  1.00 49.01      6
ATOM   18751  CD1  ILE M1278      86.653 123.184  63.677  1.00 49.31      6
```

```
ATOM  18752  C    ILE M1278      84.266 119.388  65.557  1.00  61.31       6
ATOM  18753  O    ILE M1278      83.082 119.311  65.256  1.00  62.17       8
ATOM  18754  N    ASP M1279      84.706 119.223  66.799  1.00  95.73       7
ATOM  18755  CA   ASP M1279      83.764 119.030  67.883  1.00  96.52       6
ATOM  18756  CB   ASP M1279      84.324 118.128  68.987  1.00119.40       6
ATOM  18757  CG   ASP M1279      85.803 117.870  68.844  1.00121.23       6
ATOM  18758  OD1  ASP M1279      86.219 117.271  67.826  1.00121.73       8
ATOM  18759  OD2  ASP M1279      86.551 118.263  69.762  1.00122.14       8
ATOM  18760  C    ASP M1279      83.601 120.450  68.376  1.00  96.37       6
ATOM  18761  O    ASP M1279      82.947 120.711  69.386  1.00  98.12       8
ATOM  18762  N    GLY M1280      84.208 121.358  67.612  1.00  18.28       7
ATOM  18763  CA   GLY M1280      84.189 122.785  67.902  1.00  17.31       6
ATOM  18764  C    GLY M1280      82.995 123.529  68.520  1.00  16.53       6
ATOM  18765  O    GLY M1280      82.131 122.948  69.183  1.00  15.06       8
ATOM  18766  N    VAL M1281      82.947 124.841  68.267  1.00  35.72       7
ATOM  18767  CA   VAL M1281      81.923 125.704  68.840  1.00  37.74       6
ATOM  18768  CB   VAL M1281      82.541 126.445  70.046  1.00  95.01       6
ATOM  18769  CG1  VAL M1281      81.505 127.221  70.786  1.00  95.60       6
ATOM  18770  CG2  VAL M1281      83.204 125.441  70.980  1.00  96.27       6
ATOM  18771  C    VAL M1281      81.251 126.732  67.907  1.00  39.27       6
ATOM  18772  O    VAL M1281      81.659 126.927  66.760  1.00  38.88       8
ATOM  18773  N    VAL M1282      80.204 127.359  68.451  1.00  59.53       7
ATOM  18774  CA   VAL M1282      79.359 128.413  67.851  1.00  61.86       6
ATOM  18775  CB   VAL M1282      79.665 129.813  68.503  1.00151.80       6
ATOM  18776  CG1  VAL M1282      78.438 130.725  68.403  1.00152.73       6
ATOM  18777  CG2  VAL M1282      80.106 129.662  69.935  1.00152.82       6
ATOM  18778  C    VAL M1282      79.324 128.682  66.345  1.00  62.54       6
ATOM  18779  O    VAL M1282      79.164 127.784  65.520  1.00  61.75       8
ATOM  18780  N    ARG M1283      79.435 129.987  66.070  1.00  98.63       7
ATOM  18781  CA   ARG M1283      79.467 130.688  64.783  1.00100.02       6
ATOM  18782  CB   ARG M1283      80.839 130.549  64.133  1.00  92.86       6
ATOM  18783  CG   ARG M1283      81.221 131.785  63.340  1.00  91.12       6
ATOM  18784  CD   ARG M1283      81.274 133.019  64.232  1.00  89.92       6
ATOM  18785  NE   ARG M1283      81.475 134.230  63.447  1.00  89.26       7
ATOM  18786  CZ   ARG M1283      82.586 134.500  62.772  1.00  88.80       6
ATOM  18787  NH1  ARG M1283      83.605 133.648  62.795  1.00  89.04       7
ATOM  18788  NH2  ARG M1283      82.668 135.607  62.047  1.00  88.44       7
ATOM  18789  C    ARG M1283      78.421 130.503  63.709  1.00101.02       6
ATOM  18790  O    ARG M1283      77.895 129.418  63.495  1.00101.79       8
ATOM  18791  N    ILE M1284      78.170 131.618  63.026  1.00  41.68       7
ATOM  18792  CA   ILE M1284      77.211 131.754  61.931  1.00  43.84       6
ATOM  18793  CB   ILE M1284      75.756 131.414  62.370  1.00  73.81       6
ATOM  18794  CG2  ILE M1284      74.750 132.221  61.549  1.00  73.25       6
ATOM  18795  CG1  ILE M1284      75.508 129.906  62.212  1.00  74.30       6
ATOM  18796  CD1  ILE M1284      74.139 129.421  62.679  1.00  74.58       6
ATOM  18797  C    ILE M1284      77.263 133.220  61.528  1.00  45.61       6
ATOM  18798  O    ILE M1284      77.201 134.089  62.397  1.00  45.94       8
ATOM  18799  N    GLU M1285      77.383 133.488  60.225  1.00  81.27       7
ATOM  18800  CA   GLU M1285      77.455 134.859  59.697  1.00  84.47       6
ATOM  18801  CB   GLU M1285      78.901 135.226  59.343  1.00145.08       6
ATOM  18802  CG   GLU M1285      79.848 135.342  60.527  1.00148.56       6
ATOM  18803  CD   GLU M1285      79.437 136.432  61.494  1.00150.99       6
ATOM  18804  OE1  GLU M1285      79.228 137.577  61.042  1.00152.74       8
ATOM  18805  OE2  GLU M1285      79.331 136.147  62.706  1.00152.74       8
ATOM  18806  C    GLU M1285      76.591 135.036  58.452  1.00  85.61       6
ATOM  18807  O    GLU M1285      76.945 134.566  57.372  1.00  85.94       8
```

```
ATOM   18808  N    GLU M1286      75.471 135.737  58.609  1.00113.24      7
ATOM   18809  CA   GLU M1286      74.544 135.976  57.504  1.00114.27      6
ATOM   18810  CB   GLU M1286      73.220 136.562  58.012  1.00131.82      6
ATOM   18811  CG   GLU M1286      72.253 136.934  56.879  1.00133.69      6
ATOM   18812  CD   GLU M1286      71.074 137.783  57.339  1.00134.22      6
ATOM   18813  OE1  GLU M1286      70.298 137.314  58.194  1.00133.52      8
ATOM   18814  OE2  GLU M1286      70.921 138.920  56.841  1.00134.82      8
ATOM   18815  C    GLU M1286      75.070 136.897  56.415  1.00114.18      6
ATOM   18816  O    GLU M1286      75.340 138.074  56.647  1.00114.30      8
ATOM   18817  N    GLY M1287      75.199 136.347  55.219  1.00127.50      7
ATOM   18818  CA   GLY M1287      75.643 137.131  54.088  1.00128.07      6
ATOM   18819  C    GLY M1287      74.478 137.104  53.123  1.00128.48      6
ATOM   18820  O    GLY M1287      73.755 136.108  53.070  1.00128.72      8
ATOM   18821  N    ALA M1288      74.272 138.180  52.373  1.00152.12      7
ATOM   18822  CA   ALA M1288      73.168 138.226  51.419  1.00152.14      6
ATOM   18823  CB   ALA M1288      73.392 139.354  50.404  1.00154.91      6
ATOM   18824  C    ALA M1288      73.029 136.883  50.696  1.00151.69      6
ATOM   18825  O    ALA M1288      71.920 136.410  50.443  1.00151.82      8
ATOM   18826  N    ASP M1289      74.166 136.267  50.389  1.00103.92      7
ATOM   18827  CA   ASP M1289      74.194 134.988  49.692  1.00102.41      6
ATOM   18828  CB   ASP M1289      74.495 135.218  48.205  1.00 56.26      6
ATOM   18829  CG   ASP M1289      73.252 135.566  47.388  1.00 54.29      6
ATOM   18830  OD1  ASP M1289      72.430 134.658  47.145  1.00 53.95      8
ATOM   18831  OD2  ASP M1289      73.101 136.741  46.987  1.00 53.57      8
ATOM   18832  C    ASP M1289      75.243 134.046  50.281  1.00102.06      6
ATOM   18833  O    ASP M1289      75.882 133.300  49.547  1.00102.17      8
ATOM   18834  N    ARG M1290      75.416 134.078  51.601  1.00177.42      7
ATOM   18835  CA   ARG M1290      76.397 133.220  52.267  1.00176.35      6
ATOM   18836  CB   ARG M1290      77.804 133.826  52.140  1.00111.88      6
ATOM   18837  CG   ARG M1290      78.360 133.864  50.726  1.00112.71      6
ATOM   18838  CD   ARG M1290      78.532 132.452  50.178  1.00114.01      6
ATOM   18839  NE   ARG M1290      78.809 132.437  48.744  1.00115.25      7
ATOM   18840  CZ   ARG M1290      78.931 131.332  48.015  1.00115.11      6
ATOM   18841  NH1  ARG M1290      78.802 130.138  48.576  1.00115.12      7
ATOM   18842  NH2  ARG M1290      79.176 131.423  46.718  1.00115.37      7
ATOM   18843  C    ARG M1290      76.090 133.005  53.752  1.00174.64      6
ATOM   18844  O    ARG M1290      76.438 133.852  54.577  1.00174.46      8
ATOM   18845  N    LEU M1291      75.451 131.886  54.103  1.00 53.05      7
ATOM   18846  CA   LEU M1291      75.147 131.627  55.515  1.00 50.77      6
ATOM   18847  CB   LEU M1291      74.052 130.564  55.663  1.00153.51      6
ATOM   18848  CG   LEU M1291      72.652 131.090  56.006  1.00154.05      6
ATOM   18849  CD1  LEU M1291      72.059 131.822  54.809  1.00154.44      6
ATOM   18850  CD2  LEU M1291      71.757 129.931  56.416  1.00155.06      6
ATOM   18851  C    LEU M1291      76.400 131.187  56.280  1.00 49.06      6
ATOM   18852  O    LEU M1291      76.445 131.216  57.519  1.00 48.84      8
ATOM   18853  N    SER M1292      77.410 130.788  55.514  1.00102.48      7
ATOM   18854  CA   SER M1292      78.695 130.339  56.035  1.00101.03      6
ATOM   18855  CB   SER M1292      79.778 131.354  55.658  1.00138.13      6
ATOM   18856  OG   SER M1292      79.417 132.655  56.087  1.00141.06      8
ATOM   18857  C    SER M1292      78.748 130.065  57.538  1.00 98.69      6
ATOM   18858  O    SER M1292      79.463 130.745  58.267  1.00 99.06      8
ATOM   18859  N    VAL M1293      77.986 129.073  57.994  1.00 37.22      7
ATOM   18860  CA   VAL M1293      77.973 128.683  59.405  1.00 33.89      6
ATOM   18861  CB   VAL M1293      77.025 127.480  59.652  1.00 24.86      6
ATOM   18862  CG1  VAL M1293      77.162 126.998  61.069  1.00 23.47      6
ATOM   18863  CG2  VAL M1293      75.594 127.860  59.372  1.00 24.56      6
```

337

```
ATOM   18864  C    VAL M1293      79.386 128.222  59.763  1.00 33.09      6
ATOM   18865  O    VAL M1293      79.828 127.192  59.260  1.00 32.16      8
ATOM   18866  N    PHE M1294      80.099 128.972  60.605  1.00 59.03      7
ATOM   18867  CA   PHE M1294      81.453 128.566  60.981  1.00 58.35      6
ATOM   18868  CB   PHE M1294      82.343 129.738  61.401  1.00 99.37      6
ATOM   18869  CG   PHE M1294      82.564 130.785  60.356  1.00100.89      6
ATOM   18870  CD1  PHE M1294      81.513 131.563  59.890  1.00101.42      6
ATOM   18871  CD2  PHE M1294      83.851 131.071  59.917  1.00101.34      6
ATOM   18872  CE1  PHE M1294      81.742 132.621  59.009  1.00101.34      6
ATOM   18873  CE2  PHE M1294      84.091 132.123  59.040  1.00101.32      6
ATOM   18874  CZ   PHE M1294      83.035 132.902  58.585  1.00101.85      6
ATOM   18875  C    PHE M1294      81.397 127.664  62.192  1.00 58.03      6
ATOM   18876  O    PHE M1294      80.399 127.619  62.899  1.00 58.40      8
ATOM   18877  N    VAL M1295      82.496 126.957  62.420  1.00 42.46      7
ATOM   18878  CA   VAL M1295      82.675 126.089  63.578  1.00 42.27      6
ATOM   18879  CB   VAL M1295      82.673 124.601  63.221  1.00 81.31      6
ATOM   18880  CG1  VAL M1295      83.464 123.816  64.265  1.00 81.68      6
ATOM   18881  CG2  VAL M1295      81.252 124.090  63.175  1.00 82.09      6
ATOM   18882  C    VAL M1295      84.081 126.478  63.952  1.00 42.78      6
ATOM   18883  O    VAL M1295      84.895 126.703  63.058  1.00 43.54      8
ATOM   18884  N    GLU M1296      84.385 126.577  65.243  1.00 57.95      7
ATOM   18885  CA   GLU M1296      85.735 126.972  65.626  1.00 58.50      6
ATOM   18886  CB   GLU M1296      85.979 128.433  65.228  1.00 53.08      6
ATOM   18887  CG   GLU M1296      85.075 129.430  65.944  1.00 51.32      6
ATOM   18888  CD   GLU M1296      84.901 130.742  65.183  1.00 50.83      6
ATOM   18889  OE1  GLU M1296      84.295 131.680  65.744  1.00 50.78      8
ATOM   18890  OE2  GLU M1296      85.354 130.838  64.022  1.00 49.13      8
ATOM   18891  C    GLU M1296      86.062 126.807  67.091  1.00 59.33      6
ATOM   18892  O    GLU M1296      85.259 127.138  67.961  1.00 58.10      8
ATOM   18893  N    SER M1297      87.255 126.284  67.348  1.00 64.61      7
ATOM   18894  CA   SER M1297      87.745 126.107  68.707  1.00 68.46      6
ATOM   18895  CB   SER M1297      88.637 124.861  68.810  1.00113.52      6
ATOM   18896  OG   SER M1297      87.894 123.660  68.675  1.00116.51      8
ATOM   18897  C    SER M1297      88.583 127.352  68.971  1.00 70.65      6
ATOM   18898  O    SER M1297      88.364 128.392  68.357  1.00 71.33      8
ATOM   18899  N    GLU M1298      89.528 127.256  69.895  1.00 82.71      7
ATOM   18900  CA   GLU M1298      90.413 128.375  70.159  1.00 84.60      6
ATOM   18901  CB   GLU M1298      90.840 128.403  71.625  1.00116.20      6
ATOM   18902  CG   GLU M1298      91.751 127.258  72.014  1.00118.49      6
ATOM   18903  CD   GLU M1298      92.100 127.279  73.482  1.00120.31      6
ATOM   18904  OE1  GLU M1298      91.161 127.255  74.310  1.00119.43      8
ATOM   18905  OE2  GLU M1298      93.309 127.315  73.806  1.00123.17      8
ATOM   18906  C    GLU M1298      91.599 128.023  69.277  1.00 85.69      6
ATOM   18907  O    GLU M1298      92.488 128.834  69.049  1.00 86.59      8
ATOM   18908  N    GLY M1299      91.579 126.791  68.778  1.00 52.28      7
ATOM   18909  CA   GLY M1299      92.642 126.298  67.924  1.00 52.99      6
ATOM   18910  C    GLY M1299      92.507 126.607  66.445  1.00 53.87      6
ATOM   18911  O    GLY M1299      93.512 126.744  65.764  1.00 54.31      8
ATOM   18912  N    PHE M1300      91.281 126.692  65.940  1.00 46.42      7
ATOM   18913  CA   PHE M1300      91.037 127.009  64.532  1.00 49.22      6
ATOM   18914  CB   PHE M1300      91.683 125.972  63.602  1.00110.85      6
ATOM   18915  CG   PHE M1300      91.422 124.546  63.991  1.00113.85      6
ATOM   18916  CD1  PHE M1300      90.132 124.098  64.235  1.00115.65      6
ATOM   18917  CD2  PHE M1300      92.472 123.640  64.085  1.00115.60      6
ATOM   18918  CE1  PHE M1300      89.891 122.767  64.566  1.00117.56      6
ATOM   18919  CE2  PHE M1300      92.241 122.310  64.415  1.00117.01      6
```

338

```
ATOM  18920  CZ   PHE M1300      90.948 121.873  64.655  1.00117.75      6
ATOM  18921  C    PHE M1300      89.549 127.141  64.204  1.00 50.22      6
ATOM  18922  O    PHE M1300      88.685 126.905  65.056  1.00 49.97      8
ATOM  18923  N    SER M1301      89.253 127.520  62.965  1.00 85.62      7
ATOM  18924  CA   SER M1301      87.878 127.693  62.532  1.00 86.63      6
ATOM  18925  CB   SER M1301      87.617 129.164  62.215  1.00125.65      6
ATOM  18926  OG   SER M1301      87.829 129.960  63.363  1.00127.19      8
ATOM  18927  C    SER M1301      87.565 126.832  61.319  1.00 86.63      6
ATOM  18928  O    SER M1301      88.452 126.188  60.757  1.00 86.83      8
ATOM  18929  N    LYS M1302      86.295 126.831  60.925  1.00 65.54      7
ATOM  18930  CA   LYS M1302      85.823 126.046  59.790  1.00 66.43      6
ATOM  18931  CB   LYS M1302      85.272 124.710  60.287  1.00142.22      6
ATOM  18932  CG   LYS M1302      85.263 123.599  59.260  1.00143.00      6
ATOM  18933  CD   LYS M1302      86.625 122.950  59.145  1.00145.79      6
ATOM  18934  CE   LYS M1302      86.574 121.756  58.211  1.00148.24      6
ATOM  18935  NZ   LYS M1302      87.856 120.995  58.173  1.00149.32      7
ATOM  18936  C    LYS M1302      84.708 126.824  59.098  1.00 66.84      6
ATOM  18937  O    LYS M1302      83.828 127.369  59.764  1.00 66.13      8
ATOM  18938  N    GLU M1303      84.747 126.879  57.769  1.00 97.90      7
ATOM  18939  CA   GLU M1303      83.721 127.590  57.006  1.00 98.72      6
ATOM  18940  CB   GLU M1303      84.364 128.545  55.997  1.00169.03      6
ATOM  18941  CG   GLU M1303      85.008 129.767  56.628  1.00169.15      6
ATOM  18942  CD   GLU M1303      85.583 130.725  55.603  1.00170.20      6
ATOM  18943  OE1  GLU M1303      86.517 130.332  54.872  1.00170.40      8
ATOM  18944  OE2  GLU M1303      85.101 131.873  55.525  1.00170.55      8
ATOM  18945  C    GLU M1303      82.778 126.629  56.279  1.00 98.98      6
ATOM  18946  O    GLU M1303      83.201 125.580  55.788  1.00100.07      8
ATOM  18947  N    TYR M1304      81.497 126.994  56.214  1.00115.98      7
ATOM  18948  CA   TYR M1304      80.491 126.157  55.569  1.00115.37      6
ATOM  18949  CB   TYR M1304      79.583 125.539  56.638  1.00 59.99      6
ATOM  18950  CG   TYR M1304      80.315 124.509  57.451  1.00 59.78      6
ATOM  18951  CD1  TYR M1304      81.440 124.852  58.177  1.00 60.41      6
ATOM  18952  CE1  TYR M1304      82.205 123.895  58.826  1.00 61.28      6
ATOM  18953  CD2  TYR M1304      79.959 123.178  57.406  1.00 59.60      6
ATOM  18954  CE2  TYR M1304      80.719 122.207  58.058  1.00 60.64      6
ATOM  18955  CZ   TYR M1304      81.844 122.574  58.760  1.00 61.10      6
ATOM  18956  OH   TYR M1304      82.639 121.625  59.355  1.00 63.64      8
ATOM  18957  C    TYR M1304      79.644 126.831  54.499  1.00116.12      6
ATOM  18958  O    TYR M1304      78.767 127.635  54.797  1.00116.18      8
ATOM  18959  N    LYS M1305      79.925 126.491  53.247  1.00140.45      7
ATOM  18960  CA   LYS M1305      79.181 127.019  52.113  1.00141.79      6
ATOM  18961  CB   LYS M1305      79.703 126.396  50.808  1.00169.80      6
ATOM  18962  CG   LYS M1305      79.570 124.866  50.713  1.00170.32      6
ATOM  18963  CD   LYS M1305      80.336 124.146  51.818  1.00171.27      6
ATOM  18964  CE   LYS M1305      80.011 122.661  51.840  1.00171.48      6
ATOM  18965  NZ   LYS M1305      80.697 121.959  52.959  1.00172.56      7
ATOM  18966  C    LYS M1305      77.723 126.634  52.332  1.00142.65      6
ATOM  18967  O    LYS M1305      77.270 125.591  51.860  1.00143.43      8
ATOM  18968  N    LEU M1306      76.984 127.474  53.048  1.00133.27      7
ATOM  18969  CA   LEU M1306      75.591 127.161  53.339  1.00134.57      6
ATOM  18970  CB   LEU M1306      75.416 127.011  54.850  1.00 72.93      6
ATOM  18971  CG   LEU M1306      74.078 126.476  55.345  1.00 74.33      6
ATOM  18972  CD1  LEU M1306      73.728 125.202  54.590  1.00 74.92      6
ATOM  18973  CD2  LEU M1306      74.160 126.221  56.847  1.00 74.31      6
ATOM  18974  C    LEU M1306      74.557 128.146  52.798  1.00135.34      6
ATOM  18975  O    LEU M1306      74.504 129.300  53.221  1.00135.88      8
```

339

```
ATOM  18976  N   PRO M1307      73.736 127.699  51.830  1.00 74.34      7
ATOM  18977  CD  PRO M1307      74.106 126.586  50.946  1.00129.51      6
ATOM  18978  CA  PRO M1307      72.680 128.500  51.203  1.00 74.47      6
ATOM  18979  CB  PRO M1307      72.743 128.075  49.733  1.00130.28      6
ATOM  18980  CG  PRO M1307      74.028 127.251  49.614  1.00130.06      6
ATOM  18981  C   PRO M1307      71.341 128.120  51.832  1.00 75.61      6
ATOM  18982  O   PRO M1307      71.300 127.285  52.735  1.00 76.06      8
ATOM  18983  N   LYS M1308      70.259 128.718  51.337  1.00161.78      7
ATOM  18984  CA  LYS M1308      68.891 128.466  51.815  1.00162.39      6
ATOM  18985  CB  LYS M1308      67.908 128.594  50.645  1.00154.21      6
ATOM  18986  CG  LYS M1308      68.152 129.780  49.729  1.00154.31      6
ATOM  18987  CD  LYS M1308      67.253 129.718  48.500  1.00153.70      6
ATOM  18988  CE  LYS M1308      67.531 130.879  47.560  1.00153.41      6
ATOM  18989  NZ  LYS M1308      66.651 130.838  46.364  1.00153.40      7
ATOM  18990  C   LYS M1308      68.678 127.090  52.464  1.00162.62      6
ATOM  18991  O   LYS M1308      68.168 126.173  51.820  1.00163.21      8
ATOM  18992  N   ALA M1309      69.040 126.950  53.735  1.00136.19      7
ATOM  18993  CA  ALA M1309      68.878 125.675  54.428  1.00136.08      6
ATOM  18994  CB  ALA M1309      70.096 124.798  54.199  1.00 66.84      6
ATOM  18995  C   ALA M1309      68.664 125.881  55.919  1.00135.99      6
ATOM  18996  O   ALA M1309      69.207 126.811  56.507  1.00136.64      8
ATOM  18997  N   ALA M1310      67.878 124.998  56.525  1.00106.87      7
ATOM  18998  CA  ALA M1310      67.573 125.072  57.951  1.00106.10      6
ATOM  18999  CB  ALA M1310      66.575 123.978  58.307  1.00147.46      6
ATOM  19000  C   ALA M1310      68.824 124.961  58.837  1.00105.72      6
ATOM  19001  O   ALA M1310      69.120 123.900  59.385  1.00106.16      8
ATOM  19002  N   ALA M1311      69.543 126.067  58.998  1.00103.72      7
ATOM  19003  CA  ALA M1311      70.762 126.059  59.800  1.00103.23      6
ATOM  19004  CB  ALA M1311      71.808 126.973  59.166  1.00 38.90      6
ATOM  19005  C   ALA M1311      70.564 126.442  61.258  1.00103.42      6
ATOM  19006  O   ALA M1311      70.879 127.567  61.646  1.00103.61      8
ATOM  19007  N   LEU M1312      70.067 125.508  62.069  1.00181.17      7
ATOM  19008  CA  LEU M1312      69.845 125.778  63.490  1.00180.81      6
ATOM  19009  CB  LEU M1312      69.559 124.476  64.250  1.00186.51      6
ATOM  19010  CG  LEU M1312      68.198 123.805  64.035  1.00187.60      6
ATOM  19011  CD1 LEU M1312      68.016 123.415  62.578  1.00187.30      6
ATOM  19012  CD2 LEU M1312      68.106 122.582  64.927  1.00188.28      6
ATOM  19013  C   LEU M1312      71.050 126.496  64.105  1.00179.46      6
ATOM  19014  O   LEU M1312      72.124 125.919  64.267  1.00179.00      8
ATOM  19015  N   LEU M1313      70.857 127.767  64.439  1.00 82.28      7
ATOM  19016  CA  LEU M1313      71.912 128.588  65.017  1.00 81.18      6
ATOM  19017  CB  LEU M1313      71.409 130.025  65.222  1.00208.87      6
ATOM  19018  CG  LEU M1313      70.487 130.687  64.186  1.00208.87      6
ATOM  19019  CD1 LEU M1313      70.262 132.143  64.583  1.00208.87      6
ATOM  19020  CD2 LEU M1313      71.092 130.616  62.795  1.00208.87      6
ATOM  19021  C   LEU M1313      72.369 128.023  66.354  1.00 80.04      6
ATOM  19022  O   LEU M1313      72.596 126.822  66.481  1.00 79.91      8
ATOM  19023  N   ALA M1314      72.501 128.917  67.333  1.00141.50      7
ATOM  19024  CA  ALA M1314      72.917 128.597  68.693  1.00140.89      6
ATOM  19025  CB  ALA M1314      72.582 127.148  69.032  1.00136.16      6
ATOM  19026  C   ALA M1314      74.396 128.867  68.946  1.00140.12      6
ATOM  19027  O   ALA M1314      74.909 129.933  68.592  1.00140.20      8
ATOM  19028  N   ALA M1315      75.070 127.897  69.566  1.00 67.06      7
ATOM  19029  CA  ALA M1315      76.490 128.012  69.902  1.00 65.06      6
ATOM  19030  CB  ALA M1315      76.713 129.276  70.725  1.00121.14      6
ATOM  19031  C   ALA M1315      77.048 126.781  70.649  1.00 63.78      6
```

```
ATOM  19032  O    ALA M1315     76.370 125.762  70.783  1.00 64.29      8
ATOM  19033  N    ASP M1316     78.285 126.904  71.132  1.00 77.21      7
ATOM  19034  CA   ASP M1316     78.999 125.841  71.848  1.00 76.28      6
ATOM  19035  CB   ASP M1316     78.762 125.949  73.383  1.00 39.27      6
ATOM  19036  CG   ASP M1316     79.983 126.538  74.151  1.00 36.80      6
ATOM  19037  OD1  ASP M1316     81.081 125.944  74.152  1.00 36.63      8
ATOM  19038  OD2  ASP M1316     79.855 127.609  74.766  1.00 35.24      8
ATOM  19039  C    ASP M1316     78.717 124.414  71.338  1.00 76.42      6
ATOM  19040  O    ASP M1316     77.698 124.141  70.694  1.00 76.45      8
ATOM  19041  N    GLY M1317     79.665 123.519  71.606  1.00174.10      7
ATOM  19042  CA   GLY M1317     79.551 122.129  71.200  1.00174.06      6
ATOM  19043  C    GLY M1317     79.249 121.876  69.735  1.00173.96      6
ATOM  19044  O    GLY M1317     78.716 122.745  69.046  1.00174.32      8
ATOM  19045  N    ALA M1318     79.600 120.677  69.271  1.00 93.21      7
ATOM  19046  CA   ALA M1318     79.378 120.226  67.892  1.00 92.30      6
ATOM  19047  CB   ALA M1318     79.327 121.421  66.919  1.00 95.94      6
ATOM  19048  C    ALA M1318     80.473 119.251  67.456  1.00 91.75      6
ATOM  19049  O    ALA M1318     81.432 119.658  66.813  1.00 91.28      8
ATOM  19050  N    ALA M1319     80.326 117.971  67.801  1.00 38.87      7
ATOM  19051  CA   ALA M1319     81.304 116.936  67.437  1.00 39.23      6
ATOM  19052  CB   ALA M1319     81.009 115.661  68.234  1.00 87.05      6
ATOM  19053  C    ALA M1319     81.334 116.620  65.924  1.00 39.49      6
ATOM  19054  O    ALA M1319     82.388 116.585  65.286  1.00 40.10      8
ATOM  19055  N    VAL M1320     80.152 116.375  65.376  1.00 72.64      7
ATOM  19056  CA   VAL M1320     79.943 116.064  63.969  1.00 73.01      6
ATOM  19057  CB   VAL M1320     80.241 114.586  63.668  1.00176.14      6
ATOM  19058  CG1  VAL M1320     79.897 114.278  62.230  1.00177.46      6
ATOM  19059  CG2  VAL M1320     81.698 114.272  63.937  1.00176.43      6
ATOM  19060  C    VAL M1320     78.453 116.292  63.835  1.00 73.15      6
ATOM  19061  O    VAL M1320     77.924 116.579  62.760  1.00 73.64      8
ATOM  19062  N    GLU M1321     77.807 116.155  64.988  1.00192.66      7
ATOM  19063  CA   GLU M1321     76.376 116.322  65.163  1.00194.77      6
ATOM  19064  CB   GLU M1321     76.109 117.580  65.992  1.00100.58      6
ATOM  19065  CG   GLU M1321     74.649 117.868  66.240  1.00101.19      6
ATOM  19066  CD   GLU M1321     74.443 119.152  67.008  1.00101.43      6
ATOM  19067  OE1  GLU M1321     74.859 119.214  68.182  1.00101.02      8
ATOM  19068  OE2  GLU M1321     73.877 120.102  66.430  1.00102.32      8
ATOM  19069  C    GLU M1321     75.615 116.392  63.856  1.00195.66      6
ATOM  19070  O    GLU M1321     75.049 115.402  63.401  1.00196.90      8
ATOM  19071  N    ALA M1322     75.626 117.565  63.242  1.00 36.01      7
ATOM  19072  CA   ALA M1322     74.913 117.764  62.007  1.00 36.83      6
ATOM  19073  CB   ALA M1322     73.446 117.750  62.283  1.00 39.61      6
ATOM  19074  C    ALA M1322     75.285 119.078  61.351  1.00 38.19      6
ATOM  19075  O    ALA M1322     74.402 119.804  60.907  1.00 39.21      8
ATOM  19076  N    GLY M1323     76.585 119.381  61.305  1.00123.19      7
ATOM  19077  CA   GLY M1323     77.096 120.608  60.696  1.00125.25      6
ATOM  19078  C    GLY M1323     76.300 121.877  60.944  1.00126.30      6
ATOM  19079  O    GLY M1323     76.862 122.955  61.137  1.00127.31      8
ATOM  19080  N    GLN M1324     74.985 121.712  60.909  1.00 59.99      7
ATOM  19081  CA   GLN M1324     73.968 122.720  61.112  1.00 61.95      6
ATOM  19082  CB   GLN M1324     74.544 123.989  61.749  1.00179.79      6
ATOM  19083  CG   GLN M1324     74.458 123.966  63.279  1.00180.04      6
ATOM  19084  CD   GLN M1324     73.139 123.376  63.777  1.00179.63      6
ATOM  19085  OE1  GLN M1324     72.059 123.771  63.334  1.00180.03      8
ATOM  19086  NE2  GLN M1324     73.226 122.427  64.704  1.00178.64      7
ATOM  19087  C    GLN M1324     73.114 123.068  59.888  1.00 62.73      6
```

341

```
ATOM   19088   O    GLN M1324      72.434 124.092   59.869   1.00 63.05    8
ATOM   19089   N    PRO M1325      73.149 122.232   58.839   1.00 82.54    7
ATOM   19090   CD   PRO M1325      74.250 121.338   58.436   1.00101.31    6
ATOM   19091   CA   PRO M1325      72.321 122.552   57.677   1.00 82.86    6
ATOM   19092   CB   PRO M1325      73.278 122.346   56.527   1.00101.32    6
ATOM   19093   CG   PRO M1325      73.967 121.108   56.961   1.00101.85    6
ATOM   19094   C    PRO M1325      71.215 121.517   57.676   1.00 83.19    6
ATOM   19095   O    PRO M1325      70.057 121.811   57.426   1.00 83.28    8
ATOM   19096   N    ALA M1326      71.622 120.295   57.985   1.00100.14    7
ATOM   19097   CA   ALA M1326      70.770 119.123   58.043   1.00101.85    6
ATOM   19098   CB   ALA M1326      70.983 118.401   59.362   1.00128.51    6
ATOM   19099   C    ALA M1326      69.292 119.303   57.812   1.00103.03    6
ATOM   19100   O    ALA M1326      68.629 120.120   58.448   1.00103.18    8
ATOM   19101   N    ALA M1327      68.785 118.521   56.876   1.00208.87    7
ATOM   19102   CA   ALA M1327      67.372 118.511   56.577   1.00208.87    6
ATOM   19103   CB   ALA M1327      67.147 118.647   55.083   1.00151.94    6
ATOM   19104   C    ALA M1327      67.030 117.106   57.057   1.00208.87    6
ATOM   19105   O    ALA M1327      65.944 116.578   56.801   1.00208.87    8
ATOM   19106   N    ARG M1328      68.004 116.534   57.770   1.00208.87    7
ATOM   19107   CA   ARG M1328      67.966 115.193   58.344   1.00208.87    6
ATOM   19108   CB   ARG M1328      66.517 114.775   58.675   1.00206.75    6
ATOM   19109   CG   ARG M1328      65.971 113.606   57.868   1.00207.80    6
ATOM   19110   CD   ARG M1328      64.507 113.333   58.169   1.00208.71    6
ATOM   19111   NE   ARG M1328      63.624 114.335   57.579   1.00208.87    7
ATOM   19112   CZ   ARG M1328      63.399 115.539   58.093   1.00208.87    6
ATOM   19113   NH1  ARG M1328      63.991 115.908   59.221   1.00208.87    7
ATOM   19114   NH2  ARG M1328      62.577 116.378   57.477   1.00208.87    7
ATOM   19115   C    ARG M1328      68.634 114.196   57.390   1.00208.87    6
ATOM   19116   O    ARG M1328      68.627 112.988   57.633   1.00208.87    8
ATOM   19117   N    GLY M1329      69.233 114.707   56.314   1.00 71.92    7
ATOM   19118   CA   GLY M1329      69.879 113.821   55.362   1.00 69.86    6
ATOM   19119   C    GLY M1329      71.369 113.721   55.597   1.00 68.76    6
ATOM   19120   O    GLY M1329      72.151 114.215   54.790   1.00 69.45    8
ATOM   19121   N    ALA M1330      71.753 113.067   56.694   1.00 68.05    7
ATOM   19122   CA   ALA M1330      73.160 112.908   57.082   1.00 66.72    6
ATOM   19123   CB   ALA M1330      73.332 111.658   57.938   1.00112.89    6
ATOM   19124   C    ALA M1330      74.121 112.875   55.903   1.00 65.68    6
ATOM   19125   O    ALA M1330      74.193 111.891   55.169   1.00 65.37    8
ATOM   19126   N    ALA M1331      74.856 113.972   55.738   1.00149.64    7
ATOM   19127   CA   ALA M1331      75.817 114.115   54.652   1.00149.47    6
ATOM   19128   CB   ALA M1331      76.919 115.112   55.043   1.00100.75    6
ATOM   19129   C    ALA M1331      76.433 112.778   54.283   1.00149.01    6
ATOM   19130   O    ALA M1331      76.557 111.884   55.125   1.00149.88    8
ATOM   19131   N    ALA M1332      76.803 112.652   53.013   1.00120.55    7
ATOM   19132   CA   ALA M1332      77.414 111.440   52.493   1.00118.71    6
ATOM   19133   CB   ALA M1332      78.474 111.813   51.450   1.00 61.10    6
ATOM   19134   C    ALA M1332      78.041 110.617   53.623   1.00117.29    6
ATOM   19135   O    ALA M1332      79.100 110.971   54.127   1.00117.59    8
ATOM   19136   N    PRO M1333      77.372 109.526   54.057   1.00 83.42    7
ATOM   19137   CD   PRO M1333      76.088 109.004   53.555   1.00136.34    6
ATOM   19138   CA   PRO M1333      77.881 108.669   55.125   1.00 80.62    6
ATOM   19139   CB   PRO M1333      77.118 107.377   54.904   1.00133.70    6
ATOM   19140   CG   PRO M1333      75.771 107.892   54.543   1.00135.07    6
ATOM   19141   C    PRO M1333      79.389 108.492   55.028   1.00 78.89    6
ATOM   19142   O    PRO M1333      80.036 108.133   56.008   1.00 79.83    8
ATOM   19143   N    HIS M1334      79.949 108.740   53.847   1.00 83.51    7
```

342

```
ATOM   19144  CA  HIS M1334      81.394 108.635  53.655  1.00 81.28      6
ATOM   19145  CB  HIS M1334      81.758 108.784  52.181  1.00 94.91      6
ATOM   19146  CG  HIS M1334      81.530 107.546  51.378  1.00 95.11      6
ATOM   19147  CD2 HIS M1334      80.781 107.325  50.274  1.00 95.05      6
ATOM   19148  ND1 HIS M1334      82.127 106.342  51.686  1.00 96.14      7
ATOM   19149  CE1 HIS M1334      81.754 105.432  50.804  1.00 96.08      6
ATOM   19150  NE2 HIS M1334      80.937 106.002  49.937  1.00 96.06      7
ATOM   19151  C   HIS M1334      82.092 109.728  54.450  1.00 79.10      6
ATOM   19152  O   HIS M1334      83.249 109.584  54.847  1.00 78.74      8
ATOM   19153  N   GLN M1335      81.368 110.825  54.655  1.00 78.96      7
ATOM   19154  CA  GLN M1335      81.843 111.978  55.409  1.00 77.07      6
ATOM   19155  CB  GLN M1335      80.930 113.184  55.168  1.00 62.73      6
ATOM   19156  CG  GLN M1335      81.140 114.005  53.909  1.00 63.05      6
ATOM   19157  CD  GLN M1335      79.928 114.880  53.622  1.00 63.16      6
ATOM   19158  OE1 GLN M1335      78.992 114.451  52.948  1.00 62.30      8
ATOM   19159  NE2 GLN M1335      79.924 116.097  54.162  1.00 65.06      7
ATOM   19160  C   GLN M1335      81.796 111.640  56.899  1.00 76.06      6
ATOM   19161  O   GLN M1335      82.764 111.854  57.638  1.00 77.25      8
ATOM   19162  N   LEU M1336      80.648 111.136  57.341  1.00 51.91      7
ATOM   19163  CA  LEU M1336      80.486 110.773  58.730  1.00 48.96      6
ATOM   19164  CB  LEU M1336      79.127 110.166  58.951  1.00 14.76      6
ATOM   19165  CG  LEU M1336      79.055 109.563  60.345  1.00 13.94      6
ATOM   19166  CD1 LEU M1336      78.413 110.569  61.307  1.00 13.87      6
ATOM   19167  CD2 LEU M1336      78.275 108.255  60.283  1.00 14.47      6
ATOM   19168  C   LEU M1336      81.560 109.765  59.109  1.00 48.58      6
ATOM   19169  O   LEU M1336      82.291 109.967  60.079  1.00 49.17      8
ATOM   19170  N   LEU M1337      81.652 108.673  58.355  1.00 42.86      7
ATOM   19171  CA  LEU M1337      82.684 107.685  58.626  1.00 42.77      6
ATOM   19172  CB  LEU M1337      82.784 106.660  57.492  1.00 34.32      6
ATOM   19173  CG  LEU M1337      84.063 105.802  57.441  1.00 32.83      6
ATOM   19174  CD1 LEU M1337      84.467 105.328  58.819  1.00 32.74      6
ATOM   19175  CD2 LEU M1337      83.841 104.608  56.540  1.00 31.78      6
ATOM   19176  C   LEU M1337      84.003 108.428  58.746  1.00 43.69      6
ATOM   19177  O   LEU M1337      84.677 108.340  59.770  1.00 44.59      8
ATOM   19178  N   GLU M1338      84.353 109.177  57.698  1.00 55.65      7
ATOM   19179  CA  GLU M1338      85.604 109.939  57.664  1.00 57.05      6
ATOM   19180  CB  GLU M1338      85.593 110.974  56.539  1.00130.02      6
ATOM   19181  CG  GLU M1338      86.906 111.736  56.419  1.00134.03      6
ATOM   19182  CD  GLU M1338      88.096 110.812  56.188  1.00135.60      6
ATOM   19183  OE1 GLU M1338      88.174 110.196  55.102  1.00135.05      8
ATOM   19184  OE2 GLU M1338      88.950 110.696  57.095  1.00137.56      8
ATOM   19185  C   GLU M1338      85.882 110.645  58.969  1.00 57.54      6
ATOM   19186  O   GLU M1338      87.023 110.721  59.414  1.00 57.85      8
ATOM   19187  N   ALA M1339      84.828 111.164  59.576  1.00 61.79      7
ATOM   19188  CA  ALA M1339      84.964 111.852  60.835  1.00 62.44      6
ATOM   19189  CB  ALA M1339      84.783 113.331  60.625  1.00 63.58      6
ATOM   19190  C   ALA M1339      83.947 111.316  61.829  1.00 63.55      6
ATOM   19191  O   ALA M1339      82.907 111.924  62.067  1.00 64.92      8
ATOM   19192  N   LYS M1340      84.264 110.147  62.375  1.00 20.48      7
ATOM   19193  CA  LYS M1340      83.463 109.443  63.376  1.00 20.92      6
ATOM   19194  CB  LYS M1340      81.979 109.797  63.266  1.00116.40      6
ATOM   19195  CG  LYS M1340      81.276 109.687  64.602  1.00120.37      6
ATOM   19196  CD  LYS M1340      82.096 110.397  65.683  1.00122.67      6
ATOM   19197  CE  LYS M1340      81.708 109.950  67.087  1.00124.05      6
ATOM   19198  NZ  LYS M1340      82.634 110.497  68.118  1.00125.09      7
ATOM   19199  C   LYS M1340      83.653 107.927  63.281  1.00 19.83      6
```

343

```
ATOM   19200  O   LYS M1340      83.144 107.176  64.105  1.00 19.94      8
ATOM   19201  N   GLY M1341      84.391 107.483  62.267  1.00 53.79      7
ATOM   19202  CA  GLY M1341      84.667 106.063  62.094  1.00 54.10      6
ATOM   19203  C   GLY M1341      83.566 105.182  61.526  1.00 53.76      6
ATOM   19204  O   GLY M1341      82.575 105.680  60.999  1.00 54.84      8
ATOM   19205  N   PRO M1342      83.742 103.852  61.577  1.00 39.93      7
ATOM   19206  CD  PRO M1342      85.023 103.183  61.858  1.00 71.77      6
ATOM   19207  CA  PRO M1342      82.769 102.878  61.077  1.00 39.54      6
ATOM   19208  CB  PRO M1342      83.639 101.681  60.744  1.00 71.12      6
ATOM   19209  CG  PRO M1342      84.627 101.720  61.845  1.00 71.46      6
ATOM   19210  C   PRO M1342      81.763 102.542  62.164  1.00 39.38      6
ATOM   19211  O   PRO M1342      80.649 102.098  61.888  1.00 39.75      8
ATOM   19212  N   GLU M1343      82.180 102.742  63.407  1.00110.36      7
ATOM   19213  CA  GLU M1343      81.324 102.472  64.548  1.00111.07      6
ATOM   19214  CB  GLU M1343      82.000 102.939  65.843  1.00116.77      6
ATOM   19215  CG  GLU M1343      83.474 102.565  65.949  1.00120.21      6
ATOM   19216  CD  GLU M1343      84.384 103.577  65.271  1.00122.14      6
ATOM   19217  OE1 GLU M1343      83.996 104.110  64.212  1.00123.85      8
ATOM   19218  OE2 GLU M1343      85.490 103.837  65.792  1.00122.14      8
ATOM   19219  C   GLU M1343      80.026 103.239  64.332  1.00110.60      6
ATOM   19220  O   GLU M1343      78.933 102.675  64.414  1.00111.23      8
ATOM   19221  N   ALA M1344      80.159 104.530  64.042  1.00 60.41      7
ATOM   19222  CA  ALA M1344      79.005 105.384  63.810  1.00 56.94      6
ATOM   19223  CB  ALA M1344      79.449 106.816  63.604  1.00110.71      6
ATOM   19224  C   ALA M1344      78.283 104.887  62.584  1.00 54.06      6
ATOM   19225  O   ALA M1344      77.228 104.275  62.677  1.00 54.80      8
ATOM   19226  N   VAL M1345      78.871 105.151  61.432  1.00 39.51      7
ATOM   19227  CA  VAL M1345      78.291 104.730  60.175  1.00 37.26      6
ATOM   19228  CB  VAL M1345      79.381 104.502  59.133  1.00 51.64      6
ATOM   19229  CG1 VAL M1345      78.787 103.817  57.890  1.00 50.18      6
ATOM   19230  CG2 VAL M1345      80.011 105.846  58.772  1.00 52.02      6
ATOM   19231  C   VAL M1345      77.426 103.473  60.267  1.00 35.69      6
ATOM   19232  O   VAL M1345      76.256 103.496  59.885  1.00 36.80      8
ATOM   19233  N   GLU M1346      77.993 102.374  60.753  1.00 24.68      7
ATOM   19234  CA  GLU M1346      77.208 101.159  60.871  1.00 21.54      6
ATOM   19235  CB  GLU M1346      77.924 100.115  61.717  1.00 55.67      6
ATOM   19236  CG  GLU M1346      79.060  99.391  61.060  1.00 59.34      6
ATOM   19237  CD  GLU M1346      79.650  98.355  61.992  1.00 61.81      6
ATOM   19238  OE1 GLU M1346      78.917  97.422  62.386  1.00 62.82      8
ATOM   19239  OE2 GLU M1346      80.842  98.482  62.344  1.00 62.58      8
ATOM   19240  C   GLU M1346      75.917 101.517  61.574  1.00 17.78      6
ATOM   19241  O   GLU M1346      74.839 101.532  60.972  1.00 15.48      8
ATOM   19242  N   ARG M1347      76.046 101.824  62.858  1.00 13.87      7
ATOM   19243  CA  ARG M1347      74.891 102.148  63.655  1.00 13.87      6
ATOM   19244  CB  ARG M1347      75.305 102.444  65.095  1.00 78.35      6
ATOM   19245  CG  ARG M1347      74.182 102.202  66.105  1.00 84.10      6
ATOM   19246  CD  ARG M1347      73.758 100.732  66.154  1.00 87.61      6
ATOM   19247  NE  ARG M1347      72.398 100.580  66.668  1.00 89.27      7
ATOM   19248  CZ  ARG M1347      71.451  99.858  66.072  1.00 90.63      6
ATOM   19249  NH1 ARG M1347      71.717  99.214  64.943  1.00 88.28      7
ATOM   19250  NH2 ARG M1347      70.228  99.800  66.588  1.00 92.19      7
ATOM   19251  C   ARG M1347      74.113 103.308  63.057  1.00 13.87      6
ATOM   19252  O   ARG M1347      72.986 103.564  63.463  1.00 13.87      8
ATOM   19253  N   TYR M1348      74.698 104.020  62.096  1.00 22.17      7
ATOM   19254  CA  TYR M1348      73.956 105.106  61.477  1.00 20.27      6
ATOM   19255  CB  TYR M1348      74.811 106.233  60.919  1.00 20.01      6
```

344

```
ATOM   19256  CG  TYR M1348      73.909 107.186  60.163  1.00 18.85      6
ATOM   19257  CD1 TYR M1348      72.764 107.686  60.764  1.00 19.10      6
ATOM   19258  CE1 TYR M1348      71.867 108.462  60.084  1.00 18.16      6
ATOM   19259  CD2 TYR M1348      74.128 107.504  58.842  1.00 19.50      6
ATOM   19260  CE2 TYR M1348      73.218 108.295  58.141  1.00 19.53      6
ATOM   19261  CZ  TYR M1348      72.093 108.767  58.785  1.00 19.20      6
ATOM   19262  OH  TYR M1348      71.191 109.582  58.156  1.00 22.06      8
ATOM   19263  C   TYR M1348      73.203 104.562  60.311  1.00 21.43      6
ATOM   19264  O   TYR M1348      72.127 105.049  59.986  1.00 21.47      8
ATOM   19265  N   LEU M1349      73.799 103.576  59.652  1.00 67.99      7
ATOM   19266  CA  LEU M1349      73.186 102.943  58.498  1.00 69.05      6
ATOM   19267  CB  LEU M1349      74.197 102.011  57.813  1.00 27.21      6
ATOM   19268  CG  LEU M1349      74.654 102.470  56.428  1.00 24.57      6
ATOM   19269  CD1 LEU M1349      74.591 103.979  56.348  1.00 23.50      6
ATOM   19270  CD2 LEU M1349      76.052 101.971  56.147  1.00 23.96      6
ATOM   19271  C   LEU M1349      71.967 102.170  58.964  1.00 70.22      6
ATOM   19272  O   LEU M1349      70.888 102.291  58.386  1.00 71.16      8
ATOM   19273  N   VAL M1350      72.139 101.396  60.029  1.00 38.88      7
ATOM   19274  CA  VAL M1350      71.038 100.613  60.556  1.00 39.64      6
ATOM   19275  CB  VAL M1350      71.478  99.755  61.752  1.00 82.77      6
ATOM   19276  CG1 VAL M1350      70.286  99.038  62.333  1.00 82.95      6
ATOM   19277  CG2 VAL M1350      72.527  98.749  61.312  1.00 84.45      6
ATOM   19278  C   VAL M1350      69.887 101.509  60.993  1.00 39.38      6
ATOM   19279  O   VAL M1350      68.855 101.580  60.327  1.00 39.26      8
ATOM   19280  N   ASP M1351      70.064 102.205  62.108  1.00 32.57      7
ATOM   19281  CA  ASP M1351      69.002 103.055  62.606  1.00 33.77      6
ATOM   19282  CB  ASP M1351      69.514 104.009  63.693  1.00 53.66      6
ATOM   19283  CG  ASP M1351      69.545 103.363  65.083  1.00 55.50      6
ATOM   19284  OD1 ASP M1351      68.500 102.857  65.543  1.00 55.66      8
ATOM   19285  OD2 ASP M1351      70.616 103.367  65.725  1.00 57.05      8
ATOM   19286  C   ASP M1351      68.359 103.837  61.479  1.00 33.69      6
ATOM   19287  O   ASP M1351      67.153 103.756  61.281  1.00 33.24      8
ATOM   19288  N   GLU M1352      69.165 104.554  60.709  1.00 31.50      7
ATOM   19289  CA  GLU M1352      68.637 105.378  59.632  1.00 32.99      6
ATOM   19290  CB  GLU M1352      69.776 106.138  58.959  1.00 45.71      6
ATOM   19291  CG  GLU M1352      69.323 107.291  58.087  1.00 47.39      6
ATOM   19292  CD  GLU M1352      68.407 108.257  58.815  1.00 47.45      6
ATOM   19293  OE1 GLU M1352      67.176 108.043  58.776  1.00 46.97      8
ATOM   19294  OE2 GLU M1352      68.922 109.219  59.427  1.00 47.46      8
ATOM   19295  C   GLU M1352      67.800 104.647  58.583  1.00 34.27      6
ATOM   19296  O   GLU M1352      66.940 105.260  57.939  1.00 34.81      8
ATOM   19297  N   ILE M1353      68.034 103.351  58.399  1.00 46.14      7
ATOM   19298  CA  ILE M1353      67.248 102.606  57.418  1.00 45.23      6
ATOM   19299  CB  ILE M1353      67.895 101.275  57.061  1.00 13.96      6
ATOM   19300  CG2 ILE M1353      66.917 100.436  56.253  1.00 13.87      6
ATOM   19301  CG1 ILE M1353      69.203 101.526  56.304  1.00 13.87      6
ATOM   19302  CD1 ILE M1353      69.996 100.277  56.008  1.00 13.87      6
ATOM   19303  C   ILE M1353      65.855 102.328  57.958  1.00 46.27      6
ATOM   19304  O   ILE M1353      64.856 102.645  57.310  1.00 46.46      8
ATOM   19305  N   GLN M1354      65.796 101.724  59.143  1.00 34.00      7
ATOM   19306  CA  GLN M1354      64.521 101.426  59.785  1.00 33.64      6
ATOM   19307  CB  GLN M1354      64.715 101.244  61.294  1.00 20.04      6
ATOM   19308  CG  GLN M1354      65.309  99.902  61.696  1.00 16.27      6
ATOM   19309  CD  GLN M1354      64.316  98.774  61.570  1.00 13.87      6
ATOM   19310  OE1 GLN M1354      63.361  98.689  62.325  1.00 13.87      8
ATOM   19311  NE2 GLN M1354      64.533  97.909  60.605  1.00 14.26      7
```

345

```
ATOM   19312  C   GLN M1354      63.569 102.586  59.525  1.00 34.96      6
ATOM   19313  O   GLN M1354      62.573 102.430  58.821  1.00 34.64      8
ATOM   19314  N   LYS M1355      63.912 103.751  60.070  1.00 49.00      7
ATOM   19315  CA  LYS M1355      63.110 104.961  59.930  1.00 50.54      6
ATOM   19316  CB  LYS M1355      64.015 106.187  59.779  1.00144.26      6
ATOM   19317  CG  LYS M1355      64.802 106.526  61.035  1.00148.98      6
ATOM   19318  CD  LYS M1355      65.414 107.917  60.955  1.00151.56      6
ATOM   19319  CE  LYS M1355      66.185 108.261  62.222  1.00152.92      6
ATOM   19320  NZ  LYS M1355      66.770 109.630  62.165  1.00153.96      7
ATOM   19321  C   LYS M1355      62.110 104.926  58.787  1.00 49.98      6
ATOM   19322  O   LYS M1355      60.924 105.181  59.003  1.00 50.04      8
ATOM   19323  N   VAL M1356      62.578 104.601  57.579  1.00 36.25      7
ATOM   19324  CA  VAL M1356      61.696 104.557  56.411  1.00 35.59      6
ATOM   19325  CB  VAL M1356      62.459 104.280  55.111  1.00 99.73      6
ATOM   19326  CG1 VAL M1356      61.496 104.309  53.940  1.00100.72      6
ATOM   19327  CG2 VAL M1356      63.540 105.328  54.913  1.00101.97      6
ATOM   19328  C   VAL M1356      60.666 103.478  56.609  1.00 34.12      6
ATOM   19329  O   VAL M1356      59.469 103.711  56.450  1.00 33.45      8
ATOM   19330  N   TYR M1357      61.124 102.285  56.944  1.00 26.83      7
ATOM   19331  CA  TYR M1357      60.176 101.229  57.196  1.00 27.60      6
ATOM   19332  CB  TYR M1357      60.897  99.928  57.519  1.00 32.03      6
ATOM   19333  CG  TYR M1357      61.531  99.257  56.323  1.00 29.83      6
ATOM   19334  CD1 TYR M1357      62.316  98.125  56.483  1.00 29.38      6
ATOM   19335  CE1 TYR M1357      62.900  97.498  55.406  1.00 28.03      6
ATOM   19336  CD2 TYR M1357      61.344  99.743  55.036  1.00 29.13      6
ATOM   19337  CE2 TYR M1357      61.922  99.117  53.953  1.00 28.27      6
ATOM   19338  CZ  TYR M1357      62.699  97.999  54.151  1.00 28.10      6
ATOM   19339  OH  TYR M1357      63.306  97.385  53.099  1.00 29.37      8
ATOM   19340  C   TYR M1357      59.345 101.689  58.386  1.00 29.83      6
ATOM   19341  O   TYR M1357      58.179 102.027  58.233  1.00 30.32      8
ATOM   19342  N   ARG M1358      59.964 101.727  59.564  1.00 41.68      7
ATOM   19343  CA  ARG M1358      59.296 102.137  60.800  1.00 43.86      6
ATOM   19344  CB  ARG M1358      60.318 102.690  61.801  1.00 40.55      6
ATOM   19345  CG  ARG M1358      61.171 101.636  62.467  1.00 39.36      6
ATOM   19346  CD  ARG M1358      62.310 102.230  63.260  1.00 37.99      6
ATOM   19347  NE  ARG M1358      63.033 101.172  63.954  1.00 39.09      7
ATOM   19348  CZ  ARG M1358      64.135 101.356  64.673  1.00 39.01      6
ATOM   19349  NH1 ARG M1358      64.657 102.571  64.790  1.00 39.99      7
ATOM   19350  NH2 ARG M1358      64.702 100.327  65.295  1.00 38.71      7
ATOM   19351  C   ARG M1358      58.206 103.172  60.601  1.00 45.79      6
ATOM   19352  O   ARG M1358      57.147 103.086  61.218  1.00 45.87      8
ATOM   19353  N   ALA M1359      58.474 104.148  59.737  1.00 43.17      7
ATOM   19354  CA  ALA M1359      57.529 105.229  59.467  1.00 46.65      6
ATOM   19355  CB  ALA M1359      58.255 106.379  58.771  1.00 42.33      6
ATOM   19356  C   ALA M1359      56.296 104.809  58.656  1.00 49.24      6
ATOM   19357  O   ALA M1359      55.216 105.388  58.805  1.00 50.25      8
ATOM   19358  N   GLN M1360      56.448 103.810  57.799  1.00 55.01      7
ATOM   19359  CA  GLN M1360      55.319 103.356  57.011  1.00 57.94      6
ATOM   19360  CB  GLN M1360      55.747 103.119  55.563  1.00 95.02      6
ATOM   19361  CG  GLN M1360      56.124 104.410  54.853  1.00 98.34      6
ATOM   19362  CD  GLN M1360      56.316 104.232  53.361  1.00101.35      6
ATOM   19363  OE1 GLN M1360      57.251 103.570  52.917  1.00103.64      8
ATOM   19364  NE2 GLN M1360      55.424 104.824  52.577  1.00103.29      7
ATOM   19365  C   GLN M1360      54.680 102.111  57.609  1.00 59.58      6
ATOM   19366  O   GLN M1360      53.803 101.505  57.002  1.00 61.56      8
ATOM   19367  N   GLY M1361      55.127 101.726  58.800  1.00 66.39      7
```

346

```
ATOM   19368  CA   GLY M1361      54.538 100.577  59.464  1.00  67.72      6
ATOM   19369  C    GLY M1361      55.245  99.237  59.501  1.00  69.35      6
ATOM   19370  O    GLY M1361      54.779  98.345  60.197  1.00  71.07      8
ATOM   19371  N    VAL M1362      56.349  99.072  58.779  1.00  69.68      7
ATOM   19372  CA   VAL M1362      57.067  97.791  58.770  1.00  70.93      6
ATOM   19373  CB   VAL M1362      58.148  97.778  57.682  1.00 114.35      6
ATOM   19374  CG1  VAL M1362      58.787  96.412  57.620  1.00 115.83      6
ATOM   19375  CG2  VAL M1362      57.540  98.151  56.338  1.00 114.45      6
ATOM   19376  C    VAL M1362      57.729  97.500  60.120  1.00  71.13      6
ATOM   19377  O    VAL M1362      58.354  98.382  60.702  1.00  72.34      8
ATOM   19378  N    LYS M1363      57.629  96.268  60.616  1.00  60.31      7
ATOM   19379  CA   LYS M1363      58.216  95.991  61.916  1.00  60.45      6
ATOM   19380  CB   LYS M1363      57.134  95.531  62.895  1.00 113.54      6
ATOM   19381  CG   LYS M1363      56.250  96.656  63.402  1.00 115.84      6
ATOM   19382  CD   LYS M1363      55.180  96.153  64.365  1.00 117.22      6
ATOM   19383  CE   LYS M1363      54.220  97.276  64.757  1.00 118.04      6
ATOM   19384  NZ   LYS M1363      53.114  96.819  65.645  1.00 117.65      7
ATOM   19385  C    LYS M1363      59.399  95.054  62.022  1.00  60.10      6
ATOM   19386  O    LYS M1363      59.597  94.451  63.066  1.00  61.32      8
ATOM   19387  N    LEU M1364      60.202  94.924  60.976  1.00  58.42      7
ATOM   19388  CA   LEU M1364      61.378  94.057  61.074  1.00  57.25      6
ATOM   19389  CB   LEU M1364      61.870  93.636  59.693  1.00  14.01      6
ATOM   19390  CG   LEU M1364      62.815  94.619  59.001  1.00  13.87      6
ATOM   19391  CD1  LEU M1364      63.224  94.088  57.667  1.00  13.87      6
ATOM   19392  CD2  LEU M1364      62.144  95.938  58.821  1.00  15.32      6
ATOM   19393  C    LEU M1364      62.480  94.871  61.734  1.00  57.05      6
ATOM   19394  O    LEU M1364      62.358  96.086  61.864  1.00  57.32      8
ATOM   19395  N    HIS M1365      63.555  94.202  62.125  1.00  55.51      7
ATOM   19396  CA   HIS M1365      64.735  94.821  62.745  1.00  54.85      6
ATOM   19397  CB   HIS M1365      64.404  96.051  63.621  1.00  89.31      6
ATOM   19398  CG   HIS M1365      65.613  96.742  64.213  1.00  89.88      6
ATOM   19399  CD2  HIS M1365      66.166  96.673  65.450  1.00  89.57      6
ATOM   19400  ND1  HIS M1365      66.375  97.652  63.512  1.00  90.33      7
ATOM   19401  CE1  HIS M1365      67.340  98.115  64.291  1.00  89.09      6
ATOM   19402  NE2  HIS M1365      67.236  97.536  65.472  1.00  87.92      7
ATOM   19403  C    HIS M1365      65.263  93.741  63.630  1.00  52.35      6
ATOM   19404  O    HIS M1365      64.797  92.603  63.566  1.00  51.80      8
ATOM   19405  N    ASP M1366      66.212  94.103  64.479  1.00 143.74      7
ATOM   19406  CA   ASP M1366      66.802  93.147  65.376  1.00 140.35      6
ATOM   19407  CB   ASP M1366      65.725  92.329  66.072  1.00  69.65      6
ATOM   19408  CG   ASP M1366      66.301  91.249  66.911  1.00  72.16      6
ATOM   19409  OD1  ASP M1366      66.912  91.583  67.940  1.00  73.07      8
ATOM   19410  OD2  ASP M1366      66.162  90.072  66.534  1.00  73.84      8
ATOM   19411  C    ASP M1366      67.627  92.243  64.495  1.00 137.18      6
ATOM   19412  O    ASP M1366      67.154  91.191  64.062  1.00 138.07      8
ATOM   19413  N    LYS M1367      68.853  92.678  64.220  1.00  72.57      7
ATOM   19414  CA   LYS M1367      69.788  91.933  63.391  1.00  65.51      6
ATOM   19415  CB   LYS M1367      69.583  90.433  63.611  1.00  31.25      6
ATOM   19416  CG   LYS M1367      69.563  90.075  65.106  1.00  29.48      6
ATOM   19417  CD   LYS M1367      69.400  88.595  65.400  1.00  28.92      6
ATOM   19418  CE   LYS M1367      68.009  88.104  65.102  1.00  30.10      6
ATOM   19419  NZ   LYS M1367      67.901  86.644  65.347  1.00  32.28      7
ATOM   19420  C    LYS M1367      69.524  92.342  61.955  1.00  61.88      6
ATOM   19421  O    LYS M1367      69.633  93.519  61.626  1.00  62.01      8
ATOM   19422  N    HIS M1368      69.155  91.385  61.117  1.00  60.17      7
ATOM   19423  CA   HIS M1368      68.869  91.643  59.713  1.00  56.41      6
```

347

```
ATOM  19424  CB   HIS M1368      67.349  91.771  59.515  1.00  23.36      6
ATOM  19425  CG   HIS M1368      66.606  90.516  59.873  1.00  19.79      6
ATOM  19426  CD2  HIS M1368      65.455  90.316  60.561  1.00  18.16      6
ATOM  19427  ND1  HIS M1368      67.075  89.257  59.550  1.00  20.87      7
ATOM  19428  CE1  HIS M1368      66.249  88.338  60.026  1.00  18.52      6
ATOM  19429  NE2  HIS M1368      65.256  88.953  60.644  1.00  18.09      7
ATOM  19430  C    HIS M1368      69.647  92.819  59.096  1.00  55.03      6
ATOM  19431  O    HIS M1368      70.727  92.587  58.546  1.00  57.26      8
ATOM  19432  N    ILE M1369      69.150  94.059  59.182  1.00  25.30      7
ATOM  19433  CA   ILE M1369      69.879  95.200  58.593  1.00  22.61      6
ATOM  19434  CB   ILE M1369      69.307  96.586  58.992  1.00  14.91      6
ATOM  19435  CG2  ILE M1369      69.693  97.601  57.943  1.00  15.38      6
ATOM  19436  CG1  ILE M1369      67.786  96.584  58.998  1.00  13.87      6
ATOM  19437  CD1  ILE M1369      67.189  97.959  59.235  1.00  13.87      6
ATOM  19438  C    ILE M1369      71.342  95.203  59.022  1.00  22.50      6
ATOM  19439  O    ILE M1369      72.222  95.502  58.223  1.00  22.96      8
ATOM  19440  N    GLU M1370      71.598  94.868  60.285  1.00  26.82      7
ATOM  19441  CA   GLU M1370      72.961  94.833  60.803  1.00  25.65      6
ATOM  19442  CB   GLU M1370      72.955  94.549  62.318  1.00  26.07      6
ATOM  19443  CG   GLU M1370      71.953  95.450  63.083  1.00  28.74      6
ATOM  19444  CD   GLU M1370      72.238  95.651  64.585  1.00  29.30      6
ATOM  19445  OE1  GLU M1370      72.470  94.660  65.307  1.00  26.57      8
ATOM  19446  OE2  GLU M1370      72.200  96.816  65.053  1.00  30.31      8
ATOM  19447  C    GLU M1370      73.772  93.798  60.022  1.00  24.37      6
ATOM  19448  O    GLU M1370      74.768  94.158  59.407  1.00  24.40      8
ATOM  19449  N    ILE M1371      73.335  92.535  60.006  1.00  42.55      7
ATOM  19450  CA   ILE M1371      74.042  91.474  59.265  1.00  41.87      6
ATOM  19451  CB   ILE M1371      73.136  90.282  58.880  1.00  13.87      6
ATOM  19452  CG2  ILE M1371      73.840  89.427  57.853  1.00  13.87      6
ATOM  19453  CG1  ILE M1371      72.811  89.410  60.089  1.00  13.87      6
ATOM  19454  CD1  ILE M1371      73.925  88.502  60.511  1.00  13.87      6
ATOM  19455  C    ILE M1371      74.532  92.007  57.940  1.00  41.53      6
ATOM  19456  O    ILE M1371      75.683  91.813  57.555  1.00  42.75      8
ATOM  19457  N    VAL M1372      73.621  92.661  57.238  1.00  19.01      7
ATOM  19458  CA   VAL M1372      73.908  93.217  55.938  1.00  19.49      6
ATOM  19459  CB   VAL M1372      72.619  93.685  55.264  1.00  29.25      6
ATOM  19460  CG1  VAL M1372      72.874  94.034  53.819  1.00  28.47      6
ATOM  19461  CG2  VAL M1372      71.584  92.612  55.370  1.00  29.34      6
ATOM  19462  C    VAL M1372      74.878  94.383  55.986  1.00  20.74      6
ATOM  19463  O    VAL M1372      75.778  94.471  55.142  1.00  20.78      8
ATOM  19464  N    VAL M1373      74.697  95.276  56.963  1.00  38.65      7
ATOM  19465  CA   VAL M1373      75.547  96.465  57.100  1.00  40.85      6
ATOM  19466  CB   VAL M1373      75.062  97.377  58.264  1.00  30.59      6
ATOM  19467  CG1  VAL M1373      76.175  97.603  59.275  1.00  29.63      6
ATOM  19468  CG2  VAL M1373      74.583  98.711  57.707  1.00  29.59      6
ATOM  19469  C    VAL M1373      77.003  96.086  57.300  1.00  43.04      6
ATOM  19470  O    VAL M1373      77.899  96.667  56.690  1.00  43.66      8
ATOM  19471  N    ARG M1374      77.234  95.109  58.160  1.00  29.36      7
ATOM  19472  CA   ARG M1374      78.578  94.638  58.406  1.00  32.53      6
ATOM  19473  CB   ARG M1374      78.532  93.364  59.232  1.00  41.74      6
ATOM  19474  CG   ARG M1374      79.839  92.628  59.294  1.00  42.39      6
ATOM  19475  CD   ARG M1374      79.582  91.149  59.467  1.00  41.99      6
ATOM  19476  NE   ARG M1374      80.068  90.645  60.747  1.00  40.86      7
ATOM  19477  CZ   ARG M1374      79.927  89.384  61.142  1.00  41.20      6
ATOM  19478  NH1  ARG M1374      79.313  88.497  60.359  1.00  38.94      7
ATOM  19479  NH2  ARG M1374      80.402  89.006  62.318  1.00  42.04      7
```

348

```
ATOM   19480  C    ARG M1374     79.251  94.346  57.069  1.00 33.82      6
ATOM   19481  O    ARG M1374     80.393  94.722  56.854  1.00 35.00      8
ATOM   19482  N    GLN M1375     78.535  93.677  56.171  1.00 26.64      7
ATOM   19483  CA   GLN M1375     79.068  93.325  54.859  1.00 27.87      6
ATOM   19484  CB   GLN M1375     78.008  92.590  54.055  1.00 36.76      6
ATOM   19485  CG   GLN M1375     77.738  91.208  54.584  1.00 37.15      6
ATOM   19486  CD   GLN M1375     78.817  90.238  54.190  1.00 37.52      6
ATOM   19487  OE1  GLN M1375     78.969  89.921  53.012  1.00 37.07      8
ATOM   19488  NE2  GLN M1375     79.583  89.762  55.169  1.00 36.68      7
ATOM   19489  C    GLN M1375     79.577  94.517  54.074  1.00 29.06      6
ATOM   19490  O    GLN M1375     80.518  94.383  53.289  1.00 28.43      8
ATOM   19491  N    MET M1376     78.950  95.673  54.274  1.00 42.74      7
ATOM   19492  CA   MET M1376     79.372  96.893  53.597  1.00 46.22      6
ATOM   19493  CB   MET M1376     78.395  98.030  53.865  1.00 31.58      6
ATOM   19494  CG   MET M1376     77.084  97.873  53.164  1.00 31.71      6
ATOM   19495  SD   MET M1376     76.110  99.368  53.262  1.00 31.80     16
ATOM   19496  CE   MET M1376     75.120  99.022  54.736  1.00 29.71      6
ATOM   19497  C    MET M1376     80.743  97.287  54.126  1.00 50.18      6
ATOM   19498  O    MET M1376     81.651  97.633  53.365  1.00 51.17      8
ATOM   19499  N    LEU M1377     80.884  97.239  55.445  1.00 99.63      7
ATOM   19500  CA   LEU M1377     82.144  97.576  56.085  1.00102.98      6
ATOM   19501  CB   LEU M1377     81.899  98.276  57.431  1.00 39.74      6
ATOM   19502  CG   LEU M1377     81.791  99.809  57.455  1.00 39.67      6
ATOM   19503  CD1  LEU M1377     82.421 100.388  56.199  1.00 37.44      6
ATOM   19504  CD2  LEU M1377     80.353 100.241  57.554  1.00 40.91      6
ATOM   19505  C    LEU M1377     82.995  96.333  56.298  1.00105.69      6
ATOM   19506  O    LEU M1377     83.405  96.039  57.420  1.00106.74      8
ATOM   19507  N    LYS M1378     83.250  95.593  55.225  1.00 65.31      7
ATOM   19508  CA   LYS M1378     84.069  94.404  55.354  1.00 67.42      6
ATOM   19509  CB   LYS M1378     83.295  93.142  54.942  1.00 75.64      6
ATOM   19510  CG   LYS M1378     83.409  92.763  53.477  1.00 76.91      6
ATOM   19511  CD   LYS M1378     82.999  91.306  53.220  1.00 78.29      6
ATOM   19512  CE   LYS M1378     83.163  90.924  51.737  1.00 79.71      6
ATOM   19513  NZ   LYS M1378     82.821  89.504  51.415  1.00 81.23      7
ATOM   19514  C    LYS M1378     85.333  94.555  54.516  1.00 69.00      6
ATOM   19515  O    LYS M1378     86.295  93.807  54.707  1.00 69.64      8
ATOM   19516  N    TYR M1379     85.347  95.529  53.606  1.00 66.96      7
ATOM   19517  CA   TYR M1379     86.529  95.744  52.769  1.00 69.04      6
ATOM   19518  CB   TYR M1379     86.125  96.110  51.347  1.00 85.05      6
ATOM   19519  CG   TYR M1379     85.092  95.192  50.770  1.00 85.78      6
ATOM   19520  CD1  TYR M1379     83.781  95.228  51.230  1.00 86.68      6
ATOM   19521  CE1  TYR M1379     82.811  94.396  50.700  1.00 87.58      6
ATOM   19522  CD2  TYR M1379     85.415  94.291  49.762  1.00 86.03      6
ATOM   19523  CE2  TYR M1379     84.452  93.450  49.225  1.00 86.77      6
ATOM   19524  CZ   TYR M1379     83.150  93.509  49.700  1.00 87.40      6
ATOM   19525  OH   TYR M1379     82.173  92.681  49.197  1.00 87.15      8
ATOM   19526  C    TYR M1379     87.443  96.833  53.326  1.00 69.30      6
ATOM   19527  O    TYR M1379     86.968  97.813  53.901  1.00 68.85      8
ATOM   19528  N    VAL M1380     88.751  96.653  53.152  1.00 51.19      7
ATOM   19529  CA   VAL M1380     89.732  97.614  53.635  1.00 51.71      6
ATOM   19530  CB   VAL M1380     90.569  97.026  54.767  1.00 52.39      6
ATOM   19531  CG1  VAL M1380     89.682  96.606  55.907  1.00 52.94      6
ATOM   19532  CG2  VAL M1380     91.339  95.849  54.259  1.00 52.18      6
ATOM   19533  C    VAL M1380     90.676  98.008  52.509  1.00 52.86      6
ATOM   19534  O    VAL M1380     90.686  97.374  51.458  1.00 52.43      8
ATOM   19535  N    GLU M1381     91.464  99.059  52.745  1.00 89.61      7
```

349

```
ATOM  19536  CA   GLU M1381    92.453   99.579   51.789  1.00  90.81    6
ATOM  19537  CB   GLU M1381    92.021  100.954   51.271  1.00  82.68    6
ATOM  19538  CG   GLU M1381    92.907  101.529   50.181  1.00  83.08    6
ATOM  19539  CD   GLU M1381    92.647  103.012   49.939  1.00  84.51    6
ATOM  19540  OE1  GLU M1381    92.955  103.826   50.835  1.00  84.88    8
ATOM  19541  OE2  GLU M1381    92.133  103.367   48.856  1.00  85.21    8
ATOM  19542  C    GLU M1381    93.792   99.695   52.529  1.00  91.47    6
ATOM  19543  O    GLU M1381    93.973  100.554   53.394  1.00  91.06    8
ATOM  19544  N    VAL M1382    94.719   98.813   52.177  1.00  97.50    7
ATOM  19545  CA   VAL M1382    96.036   98.743   52.800  1.00  98.76    6
ATOM  19546  CB   VAL M1382    96.937   97.759   52.036  1.00  69.35    6
ATOM  19547  CG1  VAL M1382    98.075   97.313   52.920  1.00  69.00    6
ATOM  19548  CG2  VAL M1382    96.122   96.563   51.569  1.00  69.06    6
ATOM  19549  C    VAL M1382    96.780  100.071   52.923  1.00 100.20    6
ATOM  19550  O    VAL M1382    96.307  101.107   52.460  1.00 100.77    8
ATOM  19551  N    THR M1383    97.942  100.011   53.572  1.00  90.21    7
ATOM  19552  CA   THR M1383    98.837  101.150   53.794  1.00  91.49    6
ATOM  19553  CB   THR M1383    98.236  102.232   54.734  1.00  61.68    6
ATOM  19554  OG1  THR M1383    97.421  101.611   55.735  1.00  60.19    8
ATOM  19555  CG2  THR M1383    97.443  103.257   53.945  1.00  59.51    6
ATOM  19556  C    THR M1383   100.110  100.636   54.462  1.00  93.44    6
ATOM  19557  O    THR M1383   100.045   99.755   55.327  1.00  93.71    8
ATOM  19558  N    ASP M1384   101.256  101.191   54.064  1.00 125.96    7
ATOM  19559  CA   ASP M1384   102.555  100.802   54.618  1.00 127.23    6
ATOM  19560  CB   ASP M1384   102.774  101.496   55.969  1.00 208.87    6
ATOM  19561  CG   ASP M1384   104.204  101.378   56.466  1.00 208.87    6
ATOM  19562  OD1  ASP M1384   104.690  100.240   56.631  1.00 208.87    8
ATOM  19563  OD2  ASP M1384   104.841  102.429   56.698  1.00 208.87    8
ATOM  19564  C    ASP M1384   102.593   99.284   54.791  1.00 126.28    6
ATOM  19565  O    ASP M1384   102.663   98.771   55.909  1.00 126.47    8
ATOM  19566  N    PRO M1385   102.535   98.545   53.675  1.00  51.55    7
ATOM  19567  CD   PRO M1385   102.333   99.047   52.302  1.00  58.03    6
ATOM  19568  CA   PRO M1385   102.557   97.083   53.698  1.00  50.98    6
ATOM  19569  CB   PRO M1385   102.079   96.713   52.295  1.00  57.87    6
ATOM  19570  CG   PRO M1385   102.615   97.829   51.461  1.00  57.47    6
ATOM  19571  C    PRO M1385   103.893   96.426   54.047  1.00  51.45    6
ATOM  19572  O    PRO M1385   104.950   97.069   54.046  1.00  50.55    8
ATOM  19573  N    GLY M1386   103.814   95.129   54.339  1.00 117.85    7
ATOM  19574  CA   GLY M1386   104.977   94.330   54.685  1.00 119.09    6
ATOM  19575  C    GLY M1386   104.680   92.901   54.271  1.00 120.09    6
ATOM  19576  O    GLY M1386   103.549   92.435   54.433  1.00 120.81    8
ATOM  19577  N    ASP M1387   105.678   92.205   53.729  1.00 120.62    7
ATOM  19578  CA   ASP M1387   105.503   90.821   53.271  1.00 121.76    6
ATOM  19579  CB   ASP M1387   105.221   89.882   54.456  1.00 208.87    6
ATOM  19580  CG   ASP M1387   106.472   89.555   55.267  1.00 208.87    6
ATOM  19581  OD1  ASP M1387   107.460   89.069   54.674  1.00 208.87    8
ATOM  19582  OD2  ASP M1387   106.462   89.769   56.500  1.00 208.87    8
ATOM  19583  C    ASP M1387   104.346   90.733   52.275  1.00 121.46    6
ATOM  19584  O    ASP M1387   104.026   89.661   51.762  1.00 120.77    8
ATOM  19585  N    SER M1388   103.732   91.877   51.998  1.00 131.93    7
ATOM  19586  CA   SER M1388   102.603   91.937   51.089  1.00 131.21    6
ATOM  19587  CB   SER M1388   101.311   91.859   51.901  1.00 139.67    6
ATOM  19588  OG   SER M1388   101.365   90.785   52.827  1.00 139.06    8
ATOM  19589  C    SER M1388   102.651   93.233   50.278  1.00 130.81    6
ATOM  19590  O    SER M1388   102.876   94.311   50.833  1.00 130.71    8
ATOM  19591  N    PRO M1389   102.429   93.140   48.950  1.00 115.38    7
```

350

```
ATOM   19592  CD   PRO M1389      102.152  91.882  48.224  1.00 64.27      6
ATOM   19593  CA   PRO M1389      102.444  94.283  48.023  1.00114.75      6
ATOM   19594  CB   PRO M1389      102.496  93.605  46.658  1.00 64.24      6
ATOM   19595  CG   PRO M1389      101.648  92.382  46.879  1.00 63.80      6
ATOM   19596  C    PRO M1389      101.261  95.250  48.129  1.00114.34      6
ATOM   19597  O    PRO M1389      100.447  95.163  49.050  1.00113.72      8
ATOM   19598  N    LEU M1390      101.195  96.179  47.174  1.00 77.52      7
ATOM   19599  CA   LEU M1390      100.124  97.172  47.089  1.00 77.72      6
ATOM   19600  CB   LEU M1390       98.762  96.471  47.208  1.00165.74      6
ATOM   19601  CG   LEU M1390       98.567  95.145  46.458  1.00167.33      6
ATOM   19602  CD1  LEU M1390       97.185  94.581  46.761  1.00166.78      6
ATOM   19603  CD2  LEU M1390       98.744  95.358  44.965  1.00168.14      6
ATOM   19604  C    LEU M1390      100.193  98.306  48.120  1.00 77.64      6
ATOM   19605  O    LEU M1390      101.166  98.447  48.870  1.00 77.42      8
ATOM   19606  N    LEU M1391       99.143  99.124  48.129  1.00208.87      7
ATOM   19607  CA   LEU M1391       98.999 100.243  49.057  1.00208.87      6
ATOM   19608  CB   LEU M1391       99.681 101.507  48.527  1.00134.86      6
ATOM   19609  CG   LEU M1391       99.638 102.697  49.499  1.00134.55      6
ATOM   19610  CD1  LEU M1391      100.453 102.370  50.744  1.00134.50      6
ATOM   19611  CD2  LEU M1391      100.181 103.944  48.826  1.00134.41      6
ATOM   19612  C    LEU M1391       97.501 100.489  49.197  1.00208.87      6
ATOM   19613  O    LEU M1391       97.020 100.916  50.242  1.00208.87      8
ATOM   19614  N    GLU M1392       96.776 100.219  48.116  1.00103.79      7
ATOM   19615  CA   GLU M1392       95.324 100.358  48.068  1.00102.15      6
ATOM   19616  CB   GLU M1392       94.922 101.557  47.195  1.00150.32      6
ATOM   19617  CG   GLU M1392       94.969 102.936  47.888  1.00150.57      6
ATOM   19618  CD   GLU M1392       96.376 103.466  48.148  1.00151.09      6
ATOM   19619  OE1  GLU M1392       97.136 103.659  47.178  1.00151.80      8
ATOM   19620  OE2  GLU M1392       96.721 103.705  49.325  1.00151.25      8
ATOM   19621  C    GLU M1392       94.828  99.052  47.451  1.00100.68      6
ATOM   19622  O    GLU M1392       94.316  99.034  46.331  1.00100.15      8
ATOM   19623  N    GLY M1393       95.007  97.964  48.198  1.00 71.24      7
ATOM   19624  CA   GLY M1393       94.624  96.642  47.732  1.00 69.11      6
ATOM   19625  C    GLY M1393       93.153  96.277  47.810  1.00 68.17      6
ATOM   19626  O    GLY M1393       92.735  95.292  47.196  1.00 67.32      8
ATOM   19627  N    GLN M1394       92.363  97.053  48.547  1.00 37.61      7
ATOM   19628  CA   GLN M1394       90.941  96.766  48.678  1.00 37.13      6
ATOM   19629  CB   GLN M1394       90.204  97.214  47.407  1.00130.66      6
ATOM   19630  CG   GLN M1394       88.687  97.294  47.547  1.00132.41      6
ATOM   19631  CD   GLN M1394       88.049  98.236  46.532  1.00132.57      6
ATOM   19632  OE1  GLN M1394       88.172  98.046  45.323  1.00132.50      8
ATOM   19633  NE2  GLN M1394       87.363  99.260  47.028  1.00132.53      7
ATOM   19634  C    GLN M1394       90.731  95.260  48.945  1.00 36.70      6
ATOM   19635  O    GLN M1394       90.282  94.500  48.071  1.00 35.41      8
ATOM   19636  N    VAL M1395       91.058  94.858  50.177  1.00 42.77      7
ATOM   19637  CA   VAL M1395       90.960  93.473  50.641  1.00 43.23      6
ATOM   19638  CB   VAL M1395       92.363  92.949  51.094  1.00 71.52      6
ATOM   19639  CG1  VAL M1395       92.275  91.518  51.576  1.00 71.52      6
ATOM   19640  CG2  VAL M1395       93.344  93.036  49.942  1.00 71.88      6
ATOM   19641  C    VAL M1395       89.977  93.339  51.806  1.00 43.82      6
ATOM   19642  O    VAL M1395       89.641  94.318  52.466  1.00 43.49      8
ATOM   19643  N    ALA M1396       89.537  92.109  52.049  1.00 99.50      7
ATOM   19644  CA   ALA M1396       88.586  91.800  53.111  1.00101.35      6
ATOM   19645  CB   ALA M1396       88.011  90.402  52.887  1.00 66.86      6
ATOM   19646  C    ALA M1396       89.165  91.912  54.523  1.00102.80      6
ATOM   19647  O    ALA M1396       89.981  91.092  54.945  1.00103.86      8
```

```
ATOM   19648  N    GLU  M1397      88.709  92.929  55.248  1.00 70.78      7
ATOM   19649  CA   GLU  M1397      89.148  93.201  56.614  1.00 71.98      6
ATOM   19650  CB   GLU  M1397      88.065  93.969  57.363  1.00 95.20      6
ATOM   19651  CG   GLU  M1397      88.376  94.163  58.830  1.00 94.18      6
ATOM   19652  CD   GLU  M1397      87.126  94.359  59.656  1.00 93.94      6
ATOM   19653  OE1  GLU  M1397      86.408  95.355  59.418  1.00 94.32      8
ATOM   19654  OE2  GLU  M1397      86.855  93.514  60.539  1.00 93.97      8
ATOM   19655  C    GLU  M1397      89.557  91.993  57.456  1.00 73.50      6
ATOM   19656  O    GLU  M1397      90.508  92.079  58.226  1.00 73.72      8
ATOM   19657  N    LYS  M1398      88.839  90.881  57.341  1.00143.02      7
ATOM   19658  CA   LYS  M1398      89.195  89.705  58.129  1.00145.05      6
ATOM   19659  CB   LYS  M1398      88.014  88.737  58.253  1.00121.91      6
ATOM   19660  CG   LYS  M1398      88.354  87.439  58.996  1.00122.19      6
ATOM   19661  CD   LYS  M1398      89.018  87.707  60.352  1.00122.44      6
ATOM   19662  CE   LYS  M1398      89.523  86.420  61.007  1.00123.06      6
ATOM   19663  NZ   LYS  M1398      90.331  86.670  62.240  1.00123.08      7
ATOM   19664  C    LYS  M1398      90.379  88.992  57.507  1.00146.10      6
ATOM   19665  O    LYS  M1398      91.278  88.532  58.210  1.00146.57      8
ATOM   19666  N    TRP  M1399      90.378  88.893  56.184  1.00 76.62      7
ATOM   19667  CA   TRP  M1399      91.485  88.251  55.496  1.00 77.83      6
ATOM   19668  CB   TRP  M1399      91.315  88.395  53.980  1.00198.31      6
ATOM   19669  CG   TRP  M1399      92.033  87.349  53.176  1.00199.94      6
ATOM   19670  CD2  TRP  M1399      93.166  87.545  52.317  1.00200.76      6
ATOM   19671  CE2  TRP  M1399      93.497  86.285  51.768  1.00201.10      6
ATOM   19672  CE3  TRP  M1399      93.935  88.661  51.960  1.00200.98      6
ATOM   19673  CD1  TRP  M1399      91.733  86.018  53.113  1.00200.52      6
ATOM   19674  NE1  TRP  M1399      92.607  85.372  52.270  1.00201.06      7
ATOM   19675  CZ2  TRP  M1399      94.564  86.111  50.877  1.00201.30      6
ATOM   19676  CZ3  TRP  M1399      94.997  88.487  51.072  1.00200.99      6
ATOM   19677  CH2  TRP  M1399      95.300  87.221  50.543  1.00201.01      6
ATOM   19678  C    TRP  M1399      92.725  89.018  55.964  1.00 78.09      6
ATOM   19679  O    TRP  M1399      93.818  88.464  56.101  1.00 77.43      8
ATOM   19680  N    ASP  M1400      92.517  90.304  56.234  1.00112.62      7
ATOM   19681  CA   ASP  M1400      93.570  91.207  56.680  1.00113.56      6
ATOM   19682  CB   ASP  M1400      93.139  92.648  56.440  1.00 96.52      6
ATOM   19683  CG   ASP  M1400      94.258  93.505  55.926  1.00 96.52      6
ATOM   19684  OD1  ASP  M1400      94.606  93.383  54.732  1.00 95.82      8
ATOM   19685  OD2  ASP  M1400      94.798  94.302  56.713  1.00 97.49      8
ATOM   19686  C    ASP  M1400      93.886  91.026  58.159  1.00114.67      6
ATOM   19687  O    ASP  M1400      94.914  91.496  58.640  1.00114.97      8
ATOM   19688  N    VAL  M1401      92.990  90.362  58.880  1.00156.39      7
ATOM   19689  CA   VAL  M1401      93.189  90.126  60.305  1.00157.96      6
ATOM   19690  CB   VAL  M1401      91.852  89.849  61.022  1.00147.16      6
ATOM   19691  CG1  VAL  M1401      92.102  89.498  62.489  1.00148.29      6
ATOM   19692  CG2  VAL  M1401      90.950  91.071  60.916  1.00146.45      6
ATOM   19693  C    VAL  M1401      94.118  88.937  60.503  1.00159.07      6
ATOM   19694  O    VAL  M1401      94.638  88.715  61.597  1.00159.94      8
ATOM   19695  N    GLU  M1402      94.320  88.173  59.435  1.00119.47      7
ATOM   19696  CA   GLU  M1402      95.207  87.017  59.482  1.00119.80      6
ATOM   19697  CB   GLU  M1402      94.934  86.094  58.291  1.00206.10      6
ATOM   19698  CG   GLU  M1402      93.580  85.408  58.329  1.00206.18      6
ATOM   19699  CD   GLU  M1402      93.367  84.626  59.609  1.00207.21      6
ATOM   19700  OE1  GLU  M1402      93.128  85.258  60.660  1.00206.93      8
ATOM   19701  OE2  GLU  M1402      93.450  83.380  59.566  1.00208.48      8
ATOM   19702  C    GLU  M1402      96.663  87.488  59.452  1.00119.67      6
ATOM   19703  O    GLU  M1402      97.503  87.010  60.219  1.00119.15      8
```

ATOM	19704	N	ALA	M1403	96.948	88.433	58.558	1.00136.01	7
ATOM	19705	CA	ALA	M1403	98.287	88.992	58.411	1.00136.28	6
ATOM	19706	CB	ALA	M1403	98.255	90.165	57.447	1.00 77.89	6
ATOM	19707	C	ALA	M1403	98.812	89.446	59.764	1.00136.20	6
ATOM	19708	O	ALA	M1403	99.704	88.819	60.331	1.00136.35	8
ATOM	19709	N	LEU	M1404	98.249	90.536	60.278	1.00 93.65	7
ATOM	19710	CA	LEU	M1404	98.653	91.078	61.573	1.00 94.44	6
ATOM	19711	CB	LEU	M1404	97.762	92.262	61.954	1.00189.17	6
ATOM	19712	CG	LEU	M1404	98.138	93.611	61.344	1.00189.28	6
ATOM	19713	CD1	LEU	M1404	97.128	94.665	61.764	1.00189.56	6
ATOM	19714	CD2	LEU	M1404	99.534	94.000	61.808	1.00189.25	6
ATOM	19715	C	LEU	M1404	98.639	90.061	62.707	1.00 94.69	6
ATOM	19716	O	LEU	M1404	98.786	90.425	63.869	1.00 94.40	8
ATOM	19717	N	ASN	M1405	98.441	88.794	62.368	1.00208.26	7
ATOM	19718	CA	ASN	M1405	98.434	87.722	63.355	1.00208.87	6
ATOM	19719	CB	ASN	M1405	97.093	86.986	63.348	1.00182.53	6
ATOM	19720	CG	ASN	M1405	97.168	85.636	64.044	1.00183.31	6
ATOM	19721	OD1	ASN	M1405	97.519	85.550	65.221	1.00182.88	8
ATOM	19722	ND2	ASN	M1405	96.845	84.574	63.314	1.00183.70	7
ATOM	19723	C	ASN	M1405	99.543	86.740	63.016	1.00208.87	6
ATOM	19724	O	ASN	M1405	100.505	86.581	63.769	1.00208.87	8
ATOM	19725	N	GLU	M1406	99.396	86.085	61.870	1.00 92.51	7
ATOM	19726	CA	GLU	M1406	100.372	85.112	61.407	1.00 92.09	6
ATOM	19727	CB	GLU	M1406	99.851	84.446	60.133	1.00123.09	6
ATOM	19728	CG	GLU	M1406	100.374	83.048	59.874	1.00122.99	6
ATOM	19729	CD	GLU	M1406	99.567	82.333	58.807	1.00123.10	6
ATOM	19730	OE1	GLU	M1406	99.438	82.876	57.688	1.00122.69	8
ATOM	19731	OE2	GLU	M1406	99.057	81.229	59.086	1.00123.08	8
ATOM	19732	C	GLU	M1406	101.678	85.854	61.143	1.00 91.83	6
ATOM	19733	O	GLU	M1406	102.747	85.250	61.082	1.00 91.75	8
ATOM	19734	N	ARG	M1407	101.574	87.174	61.001	1.00160.99	7
ATOM	19735	CA	ARG	M1407	102.732	88.027	60.759	1.00161.66	6
ATOM	19736	CB	ARG	M1407	102.457	88.988	59.600	1.00168.21	6
ATOM	19737	CG	ARG	M1407	102.290	88.326	58.242	1.00169.31	6
ATOM	19738	CD	ARG	M1407	103.610	87.786	57.713	1.00170.45	6
ATOM	19739	NE	ARG	M1407	103.507	87.398	56.308	1.00172.31	7
ATOM	19740	CZ	ARG	M1407	104.522	86.939	55.584	1.00172.51	6
ATOM	19741	NH1	ARG	M1407	105.723	86.808	56.131	1.00172.38	7
ATOM	19742	NH2	ARG	M1407	104.339	86.619	54.310	1.00172.91	7
ATOM	19743	C	ARG	M1407	103.085	88.835	62.007	1.00161.67	6
ATOM	19744	O	ARG	M1407	104.172	89.409	62.094	1.00161.67	8
ATOM	19745	N	LEU	M1408	102.163	88.890	62.966	1.00105.75	7
ATOM	19746	CA	LEU	M1408	102.406	89.624	64.204	1.00105.26	6
ATOM	19747	CB	LEU	M1408	101.145	89.680	65.063	1.00208.87	6
ATOM	19748	CG	LEU	M1408	101.263	90.523	66.338	1.00208.87	6
ATOM	19749	CD1	LEU	M1408	101.455	91.989	65.973	1.00208.87	6
ATOM	19750	CD2	LEU	M1408	100.013	90.350	67.183	1.00208.87	6
ATOM	19751	C	LEU	M1408	103.503	88.924	64.991	1.00104.97	6
ATOM	19752	O	LEU	M1408	104.010	89.459	65.978	1.00104.90	8
ATOM	19753	N	ILE	M1409	103.850	87.715	64.555	1.00118.87	7
ATOM	19754	CA	ILE	M1409	104.892	86.924	65.199	1.00118.29	6
ATOM	19755	CB	ILE	M1409	104.837	85.462	64.733	1.00157.06	6
ATOM	19756	CG2	ILE	M1409	105.718	84.599	65.616	1.00157.66	6
ATOM	19757	CG1	ILE	M1409	103.390	84.960	64.779	1.00157.31	6
ATOM	19758	CD1	ILE	M1409	102.717	85.121	66.129	1.00157.10	6
ATOM	19759	C	ILE	M1409	106.232	87.529	64.807	1.00118.31	6

```
ATOM  19760  O    ILE M1409    107.199  86.823  64.520  1.00118.52  8
ATOM  19761  N    ALA M1410    106.252  88.857  64.788  1.00110.75  7
ATOM  19762  CA   ALA M1410    107.421  89.648  64.438  1.00110.99  6
ATOM  19763  CB   ALA M1410    107.612  89.653  62.925  1.00 75.19  6
ATOM  19764  C    ALA M1410    107.177  91.071  64.942  1.00111.09  6
ATOM  19765  O    ALA M1410    107.233  92.003  64.118  1.00111.24  8
ATOM  19766  OXT  ALA M1410    106.923  91.240  66.154  1.00 76.43  8
ATOM  19767  CB   VAL N1414    106.256  92.922  60.034  1.00103.76  6
ATOM  19768  CG1  VAL N1414    106.136  93.593  58.675  1.00104.04  6
ATOM  19769  CG2  VAL N1414    107.662  92.370  60.235  1.00104.28  6
ATOM  19770  C    VAL N1414    104.501  94.461  60.929  1.00121.75  6
ATOM  19771  O    VAL N1414    103.622  93.742  60.445  1.00121.37  8
ATOM  19772  N    VAL N1414    106.020  93.308  62.501  1.00122.57  7
ATOM  19773  CA   VAL N1414    105.916  93.935  61.153  1.00122.38  6
ATOM  19774  N    PRO N1415    104.266  95.733  61.278  1.00166.28  7
ATOM  19775  CD   PRO N1415    105.228  96.695  61.849  1.00 86.61  6
ATOM  19776  CA   PRO N1415    102.948  96.349  61.113  1.00165.75  6
ATOM  19777  CB   PRO N1415    103.236  97.831  61.341  1.00 86.35  6
ATOM  19778  CG   PRO N1415    104.316  97.786  62.381  1.00 86.42  6
ATOM  19779  C    PRO N1415    102.290  96.081  59.760  1.00165.13  6
ATOM  19780  O    PRO N1415    102.760  96.546  58.721  1.00165.22  8
ATOM  19781  N    VAL N1416    101.204  95.313  59.792  1.00118.55  7
ATOM  19782  CA   VAL N1416    100.429  94.985  58.598  1.00117.25  6
ATOM  19783  CB   VAL N1416    100.067  93.493  58.552  1.00 85.54  6
ATOM  19784  CG1  VAL N1416     99.290  93.187  57.282  1.00 85.07  6
ATOM  19785  CG2  VAL N1416    101.333  92.652  58.647  1.00 85.05  6
ATOM  19786  C    VAL N1416     99.135  95.774  58.709  1.00116.02  6
ATOM  19787  O    VAL N1416     98.072  95.194  58.912  1.00115.60  8
ATOM  19788  N    ALA N1417     99.228  97.094  58.581  1.00100.17  7
ATOM  19789  CA   ALA N1417     98.059  97.952  58.713  1.00 98.01  6
ATOM  19790  CB   ALA N1417     98.472  99.329  59.214  1.00 53.64  6
ATOM  19791  C    ALA N1417     97.245  98.091  57.443  1.00 96.92  6
ATOM  19792  O    ALA N1417     97.740  97.847  56.342  1.00 97.36  8
ATOM  19793  N    TRP N1418     95.990  98.498  57.625  1.00 76.29  7
ATOM  19794  CA   TRP N1418     95.035  98.690  56.541  1.00 73.93  6
ATOM  19795  CB   TRP N1418     94.174  97.438  56.414  1.00 79.43  6
ATOM  19796  CG   TRP N1418     93.206  97.291  57.549  1.00 80.05  6
ATOM  19797  CD2  TRP N1418     93.369  96.486  58.715  1.00 80.30  6
ATOM  19798  CE2  TRP N1418     92.245  96.713  59.541  1.00 80.89  6
ATOM  19799  CE3  TRP N1418     94.354  95.593  59.147  1.00 80.13  6
ATOM  19800  CD1  TRP N1418     92.022  97.955  57.708  1.00 80.75  6
ATOM  19801  NE1  TRP N1418     91.439  97.615  58.900  1.00 81.20  7
ATOM  19802  CZ2  TRP N1418     92.081  96.079  60.777  1.00 81.08  6
ATOM  19803  CZ3  TRP N1418     94.192  94.960  60.378  1.00 80.13  6
ATOM  19804  CH2  TRP N1418     93.063  95.208  61.177  1.00 80.82  6
ATOM  19805  C    TRP N1418     94.158  99.872  56.948  1.00 72.31  6
ATOM  19806  O    TRP N1418     94.292 100.371  58.060  1.00 71.80  8
ATOM  19807  N    LYS N1419     93.259 100.305  56.063  1.00 83.62  7
ATOM  19808  CA   LYS N1419     92.335 101.407  56.362  1.00 82.32  6
ATOM  19809  CB   LYS N1419     92.670 102.625  55.498  1.00106.59  6
ATOM  19810  CG   LYS N1419     93.997 103.267  55.874  1.00110.34  6
ATOM  19811  CD   LYS N1419     94.270 104.562  55.113  1.00112.26  6
ATOM  19812  CE   LYS N1419     95.536 105.254  55.637  1.00113.28  6
ATOM  19813  NZ   LYS N1419     95.935 106.457  54.845  1.00113.93  7
ATOM  19814  C    LYS N1419     90.882 100.965  56.121  1.00 80.11  6
ATOM  19815  O    LYS N1419     90.633 100.112  55.279  1.00 80.55  8
```

354

```
ATOM   19816  N   PRO N1420      89.909 101.509  56.882  1.00 41.53      7
ATOM   19817  CD  PRO N1420      90.094 102.216  58.162  1.00101.26      6
ATOM   19818  CA  PRO N1420      88.496 101.132  56.703  1.00 38.15      6
ATOM   19819  CB  PRO N1420      87.878 101.431  58.067  1.00 98.29      6
ATOM   19820  CG  PRO N1420      88.671 102.592  58.537  1.00 99.71      6
ATOM   19821  C   PRO N1420      87.755 101.838  55.562  1.00 35.21      6
ATOM   19822  O   PRO N1420      87.531 103.043  55.594  1.00 34.19      8
ATOM   19823  N   LEU N1421      87.369 101.058  54.560  1.00 53.01      7
ATOM   19824  CA  LEU N1421      86.670 101.567  53.389  1.00 50.78      6
ATOM   19825  CB  LEU N1421      87.303 100.962  52.131  1.00 51.46      6
ATOM   19826  CG  LEU N1421      86.696 101.213  50.752  1.00 51.59      6
ATOM   19827  CD1 LEU N1421      86.407 102.688  50.544  1.00 52.13      6
ATOM   19828  CD2 LEU N1421      87.664 100.704  49.705  1.00 52.24      6
ATOM   19829  C   LEU N1421      85.173 101.238  53.480  1.00 49.30      6
ATOM   19830  O   LEU N1421      84.780 100.282  54.155  1.00 49.32      8
ATOM   19831  N   LEU N1422      84.344 102.044  52.812  1.00 79.90      7
ATOM   19832  CA  LEU N1422      82.888 101.871  52.828  1.00 78.18      6
ATOM   19833  CB  LEU N1422      82.203 103.183  53.222  1.00 42.96      6
ATOM   19834  CG  LEU N1422      80.812 103.115  53.854  1.00 40.12      6
ATOM   19835  CD1 LEU N1422      80.959 102.831  55.335  1.00 39.70      6
ATOM   19836  CD2 LEU N1422      80.078 104.427  53.658  1.00 38.75      6
ATOM   19837  C   LEU N1422      82.383 101.454  51.456  1.00 78.42      6
ATOM   19838  O   LEU N1422      82.441 102.230  50.501  1.00 78.07      8
ATOM   19839  N   MET N1423      81.876 100.230  51.367  1.00 59.38      7
ATOM   19840  CA  MET N1423      81.366  99.709  50.108  1.00 58.29      6
ATOM   19841  CB  MET N1423      81.770  98.244  49.942  1.00 30.39      6
ATOM   19842  CG  MET N1423      83.253  97.998  49.946  1.00 27.16      6
ATOM   19843  SD  MET N1423      84.006  98.405  48.393  1.00 25.19     16
ATOM   19844  CE  MET N1423      84.526  96.839  47.818  1.00 23.94      6
ATOM   19845  C   MET N1423      79.852  99.803  50.039  1.00 59.24      6
ATOM   19846  O   MET N1423      79.163  99.562  51.031  1.00 59.56      8
ATOM   19847  N   GLY N1424      79.341 100.170  48.868  1.00 56.07      7
ATOM   19848  CA  GLY N1424      77.904 100.230  48.683  1.00 56.69      6
ATOM   19849  C   GLY N1424      77.515  98.773  48.740  1.00 57.24      6
ATOM   19850  O   GLY N1424      78.365  97.920  48.510  1.00 57.38      8
ATOM   19851  N   VAL N1425      76.268  98.455  49.047  1.00 58.10      7
ATOM   19852  CA  VAL N1425      75.913  97.050  49.123  1.00 59.55      6
ATOM   19853  CB  VAL N1425      74.447  96.878  49.563  1.00 27.26      6
ATOM   19854  CG1 VAL N1425      73.583  96.471  48.399  1.00 28.54      6
ATOM   19855  CG2 VAL N1425      74.368  95.867  50.678  1.00 26.37      6
ATOM   19856  C   VAL N1425      76.168  96.385  47.770  1.00 62.07      6
ATOM   19857  O   VAL N1425      76.577  95.228  47.699  1.00 63.00      8
ATOM   19858  N   THR N1426      75.954  97.138  46.695  1.00 27.25      7
ATOM   19859  CA  THR N1426      76.164  96.630  45.349  1.00 28.60      6
ATOM   19860  CB  THR N1426      75.627  97.621  44.309  1.00 48.38      6
ATOM   19861  OG1 THR N1426      74.200  97.684  44.406  1.00 47.95      8
ATOM   19862  CG2 THR N1426      76.014  97.193  42.907  1.00 49.21      6
ATOM   19863  C   THR N1426      77.642  96.367  45.077  1.00 31.31      6
ATOM   19864  O   THR N1426      78.036  95.234  44.817  1.00 31.61      8
ATOM   19865  N   LYS N1427      78.456  97.415  45.145  1.00 97.03      7
ATOM   19866  CA  LYS N1427      79.890  97.287  44.907  1.00100.40      6
ATOM   19867  CB  LYS N1427      80.598  98.631  45.062  1.00125.28      6
ATOM   19868  CG  LYS N1427      80.339  99.617  43.948  1.00127.97      6
ATOM   19869  CD  LYS N1427      81.144 100.886  44.164  1.00129.49      6
ATOM   19870  CE  LYS N1427      80.893 101.901  43.063  1.00130.24      6
ATOM   19871  NZ  LYS N1427      81.740 103.112  43.239  1.00131.93      7
```

355

```
ATOM  19872  C    LYS N1427    80.541  96.306  45.858  1.00102.13    6
ATOM  19873  O    LYS N1427    81.758  96.170  45.856  1.00102.94    8
ATOM  19874  N    SER N1428    79.740  95.638  46.681  1.00 55.35    7
ATOM  19875  CA   SER N1428    80.275  94.674  47.632  1.00 56.80    6
ATOM  19876  CB   SER N1428    79.495  94.710  48.941  1.00102.03    6
ATOM  19877  OG   SER N1428    80.031  93.772  49.861  1.00102.63    8
ATOM  19878  C    SER N1428    80.199  93.287  47.040  1.00 57.86    6
ATOM  19879  O    SER N1428    81.183  92.757  46.548  1.00 58.67    8
ATOM  19880  N    ALA N1429    79.018  92.701  47.083  1.00 69.75    7
ATOM  19881  CA   ALA N1429    78.816  91.373  46.532  1.00 72.29    6
ATOM  19882  CB   ALA N1429    77.338  91.048  46.523  1.00161.19    6
ATOM  19883  C    ALA N1429    79.371  91.283  45.114  1.00 73.78    6
ATOM  19884  O    ALA N1429    79.478  90.198  44.544  1.00 74.63    8
ATOM  19885  N    LEU N1430    79.715  92.428  44.541  1.00 93.94    7
ATOM  19886  CA   LEU N1430    80.247  92.463  43.190  1.00 94.88    6
ATOM  19887  CB   LEU N1430    79.630  93.633  42.423  1.00 76.85    6
ATOM  19888  CG   LEU N1430    80.235  94.093  41.093  1.00 78.01    6
ATOM  19889  CD1  LEU N1430    80.461  92.928  40.143  1.00 77.71    6
ATOM  19890  CD2  LEU N1430    79.289  95.117  40.481  1.00 78.72    6
ATOM  19891  C    LEU N1430    81.761  92.581  43.182  1.00 95.68    6
ATOM  19892  O    LEU N1430    82.409  92.238  42.199  1.00 96.02    8
ATOM  19893  N    SER N1431    82.332  93.050  44.280  1.00119.83    7
ATOM  19894  CA   SER N1431    83.771  93.214  44.336  1.00121.26    6
ATOM  19895  CB   SER N1431    84.111  94.698  44.512  1.00192.28    6
ATOM  19896  OG   SER N1431    85.506  94.902  44.669  1.00193.66    8
ATOM  19897  C    SER N1431    84.430  92.412  45.439  1.00120.88    6
ATOM  19898  O    SER N1431    84.908  92.999  46.408  1.00122.18    8
ATOM  19899  N    THR N1432    84.468  91.084  45.311  1.00 75.41    7
ATOM  19900  CA   THR N1432    85.117  90.293  46.361  1.00 74.58    6
ATOM  19901  CB   THR N1432    84.540  90.645  47.748  1.00198.41    6
ATOM  19902  OG1  THR N1432    85.351  90.058  48.776  1.00198.05    8
ATOM  19903  CG2  THR N1432    83.121  90.117  47.875  1.00199.11    6
ATOM  19904  C    THR N1432    85.172  88.766  46.326  1.00 72.80    6
ATOM  19905  O    THR N1432    84.315  88.093  45.749  1.00 71.38    8
ATOM  19906  N    LYS N1433    86.211  88.273  47.003  1.00 65.86    7
ATOM  19907  CA   LYS N1433    86.534  86.868  47.242  1.00 64.07    6
ATOM  19908  CB   LYS N1433    85.510  86.287  48.236  1.00208.87    6
ATOM  19909  CG   LYS N1433    84.057  86.430  47.797  1.00208.87    6
ATOM  19910  CD   LYS N1433    83.064  86.186  48.918  1.00208.87    6
ATOM  19911  CE   LYS N1433    81.651  86.472  48.428  1.00208.87    6
ATOM  19912  NZ   LYS N1433    80.626  86.302  49.491  1.00208.87    7
ATOM  19913  C    LYS N1433    86.759  85.861  46.116  1.00 61.69    6
ATOM  19914  O    LYS N1433    87.853  85.777  45.551  1.00 61.66    8
ATOM  19915  N    SER N1434    85.727  85.068  45.833  1.00 68.84    7
ATOM  19916  CA   SER N1434    85.784  84.027  44.818  1.00 64.91    6
ATOM  19917  CB   SER N1434    84.826  82.901  45.170  1.00 54.55    6
ATOM  19918  OG   SER N1434    84.692  82.041  44.056  1.00 56.40    8
ATOM  19919  C    SER N1434    85.501  84.467  43.394  1.00 60.94    6
ATOM  19920  O    SER N1434    84.435  85.003  43.091  1.00 59.69    8
ATOM  19921  N    TRP N1435    86.472  84.200  42.528  1.00 69.82    7
ATOM  19922  CA   TRP N1435    86.400  84.531  41.111  1.00 65.35    6
ATOM  19923  CB   TRP N1435    87.620  83.914  40.392  1.00 42.09    6
ATOM  19924  CG   TRP N1435    87.366  82.582  39.702  1.00 36.85    6
ATOM  19925  CD2  TRP N1435    87.664  81.275  40.205  1.00 34.58    6
ATOM  19926  CE2  TRP N1435    87.179  80.341  39.261  1.00 33.86    6
ATOM  19927  CE3  TRP N1435    88.291  80.800  41.359  1.00 33.72    6
```

356

```
ATOM  19928  CD1  TRP  N1435    86.738  82.391  38.500  1.00  35.21    6
ATOM  19929  NE1  TRP  N1435    86.621  81.050  38.231  1.00  34.18    7
ATOM  19930  CZ2  TRP  N1435    87.298  78.963  39.442  1.00  33.23    6
ATOM  19931  CZ3  TRP  N1435    88.412  79.425  41.537  1.00  33.70    6
ATOM  19932  CH2  TRP  N1435    87.916  78.527  40.583  1.00  33.93    6
ATOM  19933  C    TRP  N1435    85.100  83.980  40.526  1.00  64.27    6
ATOM  19934  O    TRP  N1435    84.442  84.614  39.692  1.00  64.33    8
ATOM  19935  N    LEU  N1436    84.753  82.789  41.006  1.00  80.10    7
ATOM  19936  CA   LEU  N1436    83.582  82.028  40.588  1.00  77.84    6
ATOM  19937  CB   LEU  N1436    83.444  80.821  41.515  1.00  36.92    6
ATOM  19938  CG   LEU  N1436    82.841  79.556  40.916  1.00  34.67    6
ATOM  19939  CD1  LEU  N1436    83.689  79.106  39.737  1.00  33.49    6
ATOM  19940  CD2  LEU  N1436    82.754  78.461  41.976  1.00  34.28    6
ATOM  19941  C    LEU  N1436    82.247  82.785  40.507  1.00  77.74    6
ATOM  19942  O    LEU  N1436    81.628  82.842  39.446  1.00  78.00    8
ATOM  19943  N    SER  N1437    81.811  83.355  41.625  1.00  46.06    7
ATOM  19944  CA   SER  N1437    80.555  84.095  41.695  1.00  44.46    6
ATOM  19945  CB   SER  N1437    80.059  84.094  43.131  1.00  56.11    6
ATOM  19946  OG   SER  N1437    81.126  84.336  44.030  1.00  56.82    8
ATOM  19947  C    SER  N1437    80.602  85.531  41.181  1.00  43.34    6
ATOM  19948  O    SER  N1437    79.568  86.105  40.866  1.00  42.72    8
ATOM  19949  N    ALA  N1438    81.793  86.121  41.121  1.00  25.38    7
ATOM  19950  CA   ALA  N1438    81.939  87.483  40.616  1.00  24.36    6
ATOM  19951  CB   ALA  N1438    83.262  88.062  41.010  1.00  13.87    6
ATOM  19952  C    ALA  N1438    81.885  87.363  39.117  1.00  24.32    6
ATOM  19953  O    ALA  N1438    81.865  88.371  38.406  1.00  24.34    8
ATOM  19954  N    ALA  N1439    81.896  86.106  38.663  1.00  31.44    7
ATOM  19955  CA   ALA  N1439    81.842  85.716  37.247  1.00  32.45    6
ATOM  19956  CB   ALA  N1439    82.396  84.309  37.086  1.00  13.87    6
ATOM  19957  C    ALA  N1439    80.391  85.738  36.791  1.00  33.49    6
ATOM  19958  O    ALA  N1439    80.067  86.032  35.635  1.00  33.10    8
ATOM  19959  N    SER  N1440    79.528  85.387  37.732  1.00  37.46    7
ATOM  19960  CA   SER  N1440    78.112  85.352  37.490  1.00  36.77    6
ATOM  19961  CB   SER  N1440    77.360  85.090  38.795  1.00  58.28    6
ATOM  19962  OG   SER  N1440    77.856  83.943  39.465  1.00  58.96    8
ATOM  19963  C    SER  N1440    77.824  86.742  37.009  1.00  36.24    6
ATOM  19964  O    SER  N1440    76.954  86.953  36.162  1.00  35.69    8
ATOM  19965  N    PHE  N1441    78.589  87.690  37.536  1.00  17.74    7
ATOM  19966  CA   PHE  N1441    78.373  89.074  37.176  1.00  19.96    6
ATOM  19967  CB   PHE  N1441    79.172  89.992  38.093  1.00  30.81    6
ATOM  19968  CG   PHE  N1441    78.640  90.034  39.499  1.00  30.88    6
ATOM  19969  CD1  PHE  N1441    79.099  89.143  40.461  1.00  30.90    6
ATOM  19970  CD2  PHE  N1441    77.650  90.939  39.854  1.00  29.97    6
ATOM  19971  CE1  PHE  N1441    78.574  89.160  41.754  1.00  29.52    6
ATOM  19972  CE2  PHE  N1441    77.124  90.955  41.144  1.00  29.34    6
ATOM  19973  CZ   PHE  N1441    77.585  90.068  42.091  1.00  28.33    6
ATOM  19974  C    PHE  N1441    78.614  89.420  35.719  1.00  21.74    6
ATOM  19975  O    PHE  N1441    79.110  88.592  34.947  1.00  21.70    8
ATOM  19976  N    GLN  N1442    78.219  90.644  35.357  1.00  67.06    7
ATOM  19977  CA   GLN  N1442    78.336  91.184  34.000  1.00  69.94    6
ATOM  19978  CB   GLN  N1442    77.372  92.371  33.846  1.00 109.63    6
ATOM  19979  CG   GLN  N1442    77.268  92.989  32.449  1.00 113.01    6
ATOM  19980  CD   GLN  N1442    76.480  92.137  31.463  1.00 115.85    6
ATOM  19981  OE1  GLN  N1442    75.370  91.689  31.754  1.00 116.49    8
ATOM  19982  NE2  GLN  N1442    77.049  91.923  30.280  1.00 117.78    7
ATOM  19983  C    GLN  N1442    79.775  91.638  33.743  1.00  71.00    6
```

357

```
ATOM   19984   O    GLN N1442    80.044  92.832  33.597  1.00  71.29    8
ATOM   19985   N    ASN N1443    80.690  90.674  33.683  1.00  72.82    7
ATOM   19986   CA   ASN N1443    82.107  90.941  33.468  1.00  72.00    6
ATOM   19987   CB   ASN N1443    82.568  92.077  34.385  1.00 106.27    6
ATOM   19988   CG   ASN N1443    82.405  91.741  35.862  1.00 108.12    6
ATOM   19989   OD1  ASN N1443    81.469  91.040  36.254  1.00 107.31    8
ATOM   19990   ND2  ASN N1443    83.312  92.254  36.691  1.00 110.30    7
ATOM   19991   C    ASN N1443    82.875  89.668  33.801  1.00  71.20    6
ATOM   19992   O    ASN N1443    83.833  89.690  34.570  1.00  71.75    8
ATOM   19993   N    THR N1444    82.448  88.554  33.219  1.00  62.95    7
ATOM   19994   CA   THR N1444    83.089  87.267  33.472  1.00  62.82    6
ATOM   19995   CB   THR N1444    82.246  86.127  32.894  1.00  61.77    6
ATOM   19996   OG1  THR N1444    80.933  86.174  33.472  1.00  62.25    8
ATOM   19997   CG2  THR N1444    82.889  84.785  33.204  1.00  62.01    6
ATOM   19998   C    THR N1444    84.510  87.176  32.912  1.00  63.05    6
ATOM   19999   O    THR N1444    85.425  86.731  33.607  1.00  62.69    8
ATOM   20000   N    THR N1445    84.687  87.589  31.655  1.00  31.70    7
ATOM   20001   CA   THR N1445    85.999  87.571  31.012  1.00  30.06    6
ATOM   20002   CB   THR N1445    86.068  88.526  29.809  1.00  61.07    6
ATOM   20003   OG1  THR N1445    85.025  88.222  28.876  1.00  61.05    8
ATOM   20004   CG2  THR N1445    87.398  88.391  29.123  1.00  61.55    6
ATOM   20005   C    THR N1445    86.978  88.073  32.039  1.00  29.81    6
ATOM   20006   O    THR N1445    87.773  87.322  32.567  1.00  28.84    8
ATOM   20007   N    HIS N1446    86.881  89.359  32.336  1.00  53.13    7
ATOM   20008   CA   HIS N1446    87.756  89.997  33.304  1.00  54.87    6
ATOM   20009   CB   HIS N1446    87.204  91.375  33.678  1.00  67.65    6
ATOM   20010   CG   HIS N1446    88.143  92.198  34.501  1.00  69.25    6
ATOM   20011   CD2  HIS N1446    89.170  91.841  35.311  1.00  69.60    6
ATOM   20012   ND1  HIS N1446    88.062  93.572  34.567  1.00  69.66    7
ATOM   20013   CE1  HIS N1446    88.997  94.027  35.383  1.00  70.54    6
ATOM   20014   NE2  HIS N1446    89.683  92.997  35.848  1.00  70.59    7
ATOM   20015   C    HIS N1446    87.937  89.139  34.550  1.00  55.28    6
ATOM   20016   O    HIS N1446    89.032  88.628  34.785  1.00  55.67    8
ATOM   20017   N    VAL N1447    86.880  88.978  35.343  1.00  27.83    7
ATOM   20018   CA   VAL N1447    86.973  88.166  36.554  1.00  28.47    6
ATOM   20019   CB   VAL N1447    85.596  87.736  37.066  1.00  68.41    6
ATOM   20020   CG1  VAL N1447    85.758  86.848  38.295  1.00  68.91    6
ATOM   20021   CG2  VAL N1447    84.760  88.950  37.389  1.00  70.01    6
ATOM   20022   C    VAL N1447    87.736  86.894  36.251  1.00  28.79    6
ATOM   20023   O    VAL N1447    88.776  86.616  36.847  1.00  28.26    8
ATOM   20024   N    LEU N1448    87.198  86.132  35.303  1.00  83.43    7
ATOM   20025   CA   LEU N1448    87.770  84.862  34.883  1.00  83.81    6
ATOM   20026   CB   LEU N1448    86.862  84.220  33.825  1.00  54.44    6
ATOM   20027   CG   LEU N1448    86.245  82.852  34.173  1.00  54.53    6
ATOM   20028   CD1  LEU N1448    85.696  82.867  35.588  1.00  54.24    6
ATOM   20029   CD2  LEU N1448    85.151  82.498  33.167  1.00  53.83    6
ATOM   20030   C    LEU N1448    89.195  85.013  34.363  1.00  83.93    6
ATOM   20031   O    LEU N1448    90.049  84.172  34.625  1.00  84.69    8
ATOM   20032   N    THR N1449    89.453  86.090  33.632  1.00  40.52    7
ATOM   20033   CA   THR N1449    90.787  86.346  33.102  1.00  40.49    6
ATOM   20034   CB   THR N1449    90.837  87.684  32.318  1.00  41.10    6
ATOM   20035   OG1  THR N1449    90.378  87.478  30.976  1.00  39.05    8
ATOM   20036   CG2  THR N1449    92.257  88.246  32.293  1.00  40.51    6
ATOM   20037   C    THR N1449    91.760  86.435  34.270  1.00  41.44    6
ATOM   20038   O    THR N1449    92.687  85.638  34.384  1.00  40.81    8
ATOM   20039   N    GLU N1450    91.535  87.422  35.129  1.00  54.30    7
```

358

```
ATOM   20040   CA   GLU N1450      92.373   87.638   36.296   1.00 56.31      6
ATOM   20041   CB   GLU N1450      91.700   88.641   37.244   1.00175.21      6
ATOM   20042   CG   GLU N1450      92.337   88.764   38.634   1.00178.88      6
ATOM   20043   CD   GLU N1450      93.730   89.372   38.611   1.00182.13      6
ATOM   20044   OE1  GLU N1450      93.884   90.494   38.081   1.00184.88      8
ATOM   20045   OE2  GLU N1450      94.671   88.734   39.132   1.00183.57      8
ATOM   20046   C    GLU N1450      92.624   86.328   37.025   1.00 56.59      6
ATOM   20047   O    GLU N1450      93.732   85.792   36.999   1.00 56.22      8
ATOM   20048   N    ALA N1451      91.583   85.817   37.671   1.00 49.67      7
ATOM   20049   CA   ALA N1451      91.684   84.581   38.426   1.00 49.72      6
ATOM   20050   CB   ALA N1451      90.340   83.899   38.491   1.00 29.23      6
ATOM   20051   C    ALA N1451      92.702   83.666   37.785   1.00 50.05      6
ATOM   20052   O    ALA N1451      93.592   83.161   38.452   1.00 51.38      8
ATOM   20053   N    ALA N1452      92.571   83.464   36.481   1.00 84.61      7
ATOM   20054   CA   ALA N1452      93.492   82.606   35.754   1.00 84.25      6
ATOM   20055   CB   ALA N1452      93.231   82.708   34.260   1.00114.98      6
ATOM   20056   C    ALA N1452      94.925   83.012   36.068   1.00 83.64      6
ATOM   20057   O    ALA N1452      95.697   82.212   36.593   1.00 84.27      8
ATOM   20058   N    ILE N1453      95.273   84.255   35.742   1.00 48.42      7
ATOM   20059   CA   ILE N1453      96.611   84.778   36.002   1.00 47.40      6
ATOM   20060   CB   ILE N1453      96.652   86.332   35.894   1.00 56.02      6
ATOM   20061   CG2  ILE N1453      97.816   86.885   36.664   1.00 56.14      6
ATOM   20062   CG1  ILE N1453      96.776   86.769   34.434   1.00 56.58      6
ATOM   20063   CD1  ILE N1453      95.528   86.576   33.607   1.00 58.36      6
ATOM   20064   C    ILE N1453      96.996   84.361   37.413   1.00 46.66      6
ATOM   20065   O    ILE N1453      97.756   83.412   37.593   1.00 47.03      8
ATOM   20066   N    ALA N1454      96.455   85.051   38.414   1.00 37.06      7
ATOM   20067   CA   ALA N1454      96.768   84.727   39.800   1.00 37.18      6
ATOM   20068   CB   ALA N1454      95.939   85.585   40.723   1.00 26.87      6
ATOM   20069   C    ALA N1454      96.521   83.243   40.089   1.00 37.73      6
ATOM   20070   O    ALA N1454      96.110   82.492   39.205   1.00 37.29      8
ATOM   20071   N    GLY N1455      96.781   82.818   41.322   1.00 69.50      7
ATOM   20072   CA   GLY N1455      96.572   81.423   41.669   1.00 70.33      6
ATOM   20073   C    GLY N1455      95.087   81.159   41.721   1.00 71.07      6
ATOM   20074   O    GLY N1455      94.533   80.472   40.864   1.00 70.17      8
ATOM   20075   N    LYS N1456      94.453   81.719   42.746   1.00 94.06      7
ATOM   20076   CA   LYS N1456      93.018   81.608   42.961   1.00 94.89      6
ATOM   20077   CB   LYS N1456      92.289   82.055   41.697   1.00 81.13      6
ATOM   20078   CG   LYS N1456      92.501   83.527   41.368   1.00 82.00      6
ATOM   20079   CD   LYS N1456      91.904   84.414   42.460   1.00 83.34      6
ATOM   20080   CE   LYS N1456      91.744   85.859   42.012   1.00 84.06      6
ATOM   20081   NZ   LYS N1456      90.861   86.609   42.948   1.00 85.20      7
ATOM   20082   C    LYS N1456      92.524   80.234   43.389   1.00 94.74      6
ATOM   20083   O    LYS N1456      93.005   79.212   42.915   1.00 95.13      8
ATOM   20084   N    LYS N1457      91.565   80.228   44.307   1.00 94.29      7
ATOM   20085   CA   LYS N1457      90.960   78.996   44.806   1.00 95.55      6
ATOM   20086   CB   LYS N1457      91.834   78.321   45.860   1.00 32.50      6
ATOM   20087   CG   LYS N1457      93.304   78.176   45.530   1.00 32.29      6
ATOM   20088   CD   LYS N1457      93.971   77.148   46.469   1.00 31.26      6
ATOM   20089   CE   LYS N1457      93.641   77.416   47.949   1.00 31.48      6
ATOM   20090   NZ   LYS N1457      93.455   76.177   48.780   1.00 29.54      7
ATOM   20091   C    LYS N1457      89.647   79.382   45.470   1.00 97.43      6
ATOM   20092   O    LYS N1457      89.634   79.723   46.652   1.00 98.45      8
ATOM   20093   N    ASP N1458      88.549   79.318   44.720   1.00 52.00      7
ATOM   20094   CA   ASP N1458      87.233   79.687   45.236   1.00 52.36      6
ATOM   20095   CB   ASP N1458      86.137   78.958   44.464   1.00130.17      6
```

359

```
ATOM  20096  CG   ASP N1458      84.754  79.431  44.847  1.00132.81     6
ATOM  20097  OD1  ASP N1458      84.466  79.507  46.056  1.00134.02     8
ATOM  20098  OD2  ASP N1458      83.949  79.724  43.945  1.00134.12     8
ATOM  20099  C    ASP N1458      87.053  79.411  46.721  1.00 52.13     6
ATOM  20100  O    ASP N1458      86.552  80.255  47.457  1.00 52.31     8
ATOM  20101  N    GLU N1459      87.458  78.219  47.144  1.00 69.54     7
ATOM  20102  CA   GLU N1459      87.356  77.785  48.532  1.00 69.25     6
ATOM  20103  CB   GLU N1459      87.898  78.860  49.476  1.00120.05     6
ATOM  20104  CG   GLU N1459      88.416  78.297  50.788  1.00122.42     6
ATOM  20105  CD   GLU N1459      89.429  77.178  50.585  1.00123.16     6
ATOM  20106  OE1  GLU N1459      90.453  77.415  49.909  1.00123.14     8
ATOM  20107  OE2  GLU N1459      89.201  76.062  51.103  1.00122.96     8
ATOM  20108  C    GLU N1459      85.906  77.464  48.848  1.00 67.80     6
ATOM  20109  O    GLU N1459      85.600  76.769  49.810  1.00 66.51     8
ATOM  20110  N    LEU N1460      85.023  77.979  48.005  1.00 57.98     7
ATOM  20111  CA   LEU N1460      83.590  77.755  48.104  1.00 57.91     6
ATOM  20112  CB   LEU N1460      83.305  76.293  47.742  1.00 28.57     6
ATOM  20113  CG   LEU N1460      84.031  75.902  46.436  1.00 27.18     6
ATOM  20114  CD1  LEU N1460      83.756  74.448  46.084  1.00 26.65     6
ATOM  20115  CD2  LEU N1460      83.593  76.803  45.293  1.00 25.81     6
ATOM  20116  C    LEU N1460      82.929  78.150  49.428  1.00 58.67     6
ATOM  20117  O    LEU N1460      82.386  77.313  50.153  1.00 59.22     8
ATOM  20118  N    ILE N1461      82.966  79.451  49.712  1.00 70.79     7
ATOM  20119  CA   ILE N1461      82.379  80.025  50.920  1.00 71.83     6
ATOM  20120  CB   ILE N1461      83.234  81.173  51.457  1.00 81.21     6
ATOM  20121  CG2  ILE N1461      82.578  81.771  52.683  1.00 81.21     6
ATOM  20122  CG1  ILE N1461      84.636  80.668  51.778  1.00 81.91     6
ATOM  20123  CD1  ILE N1461      85.580  81.754  52.247  1.00 82.75     6
ATOM  20124  C    ILE N1461      81.010  80.609  50.597  1.00 72.68     6
ATOM  20125  O    ILE N1461      80.031  80.395  51.317  1.00 72.65     8
ATOM  20126  N    GLY N1462      80.964  81.370  49.513  1.00132.81     7
ATOM  20127  CA   GLY N1462      79.724  81.987  49.094  1.00133.02     6
ATOM  20128  C    GLY N1462      78.733  80.982  48.546  1.00133.31     6
ATOM  20129  O    GLY N1462      79.033  80.240  47.611  1.00133.17     8
ATOM  20130  N    LEU N1463      77.545  80.963  49.140  1.00 61.88     7
ATOM  20131  CA   LEU N1463      76.484  80.063  48.726  1.00 60.60     6
ATOM  20132  CB   LEU N1463      75.191  80.451  49.443  1.00 50.32     6
ATOM  20133  CG   LEU N1463      75.206  80.335  50.968  1.00 51.25     6
ATOM  20134  CD1  LEU N1463      73.977  81.009  51.565  1.00 50.41     6
ATOM  20135  CD2  LEU N1463      75.260  78.871  51.355  1.00 51.51     6
ATOM  20136  C    LEU N1463      76.270  80.080  47.206  1.00 59.77     6
ATOM  20137  O    LEU N1463      76.499  79.078  46.527  1.00 60.49     8
ATOM  20138  N    LYS N1464      75.846  81.220  46.669  1.00 72.25     7
ATOM  20139  CA   LYS N1464      75.591  81.314  45.238  1.00 71.28     6
ATOM  20140  CB   LYS N1464      75.068  82.697  44.862  1.00 79.80     6
ATOM  20141  CG   LYS N1464      73.658  82.925  45.369  1.00 81.73     6
ATOM  20142  CD   LYS N1464      72.926  84.014  44.604  1.00 82.90     6
ATOM  20143  CE   LYS N1464      71.541  84.200  45.190  1.00 83.03     6
ATOM  20144  NZ   LYS N1464      70.912  82.870  45.434  1.00 83.10     7
ATOM  20145  C    LYS N1464      76.776  80.961  44.373  1.00 70.10     6
ATOM  20146  O    LYS N1464      76.691  81.019  43.152  1.00 70.34     8
ATOM  20147  N    GLU N1465      77.886  80.602  44.996  1.00 71.22     7
ATOM  20148  CA   GLU N1465      79.055  80.206  44.234  1.00 70.09     6
ATOM  20149  CB   GLU N1465      80.324  80.535  45.004  1.00129.79     6
ATOM  20150  CG   GLU N1465      80.288  81.883  45.670  1.00133.90     6
ATOM  20151  CD   GLU N1465      81.538  82.151  46.457  1.00136.35     6
```

```
ATOM   20152  OE1 GLU N1465      81.920  81.284  47.269  1.00137.37      8
ATOM   20153  OE2 GLU N1465      82.137  83.228  46.267  1.00138.46      8
ATOM   20154  C   GLU N1465      78.883  78.707  44.153  1.00 67.73      6
ATOM   20155  O   GLU N1465      78.694  78.123  43.087  1.00 68.58      8
ATOM   20156  N   ASN N1466      78.933  78.101  45.326  1.00 43.12      7
ATOM   20157  CA  ASN N1466      78.765  76.672  45.482  1.00 39.82      6
ATOM   20158  CB  ASN N1466      78.546  76.371  46.971  1.00 50.98      6
ATOM   20159  CG  ASN N1466      79.244  75.117  47.434  1.00 53.23      6
ATOM   20160  OD1 ASN N1466      78.650  74.040  47.474  1.00 53.76      8
ATOM   20161  ND2 ASN N1466      80.515  75.251  47.797  1.00 54.90      7
ATOM   20162  C   ASN N1466      77.527  76.307  44.662  1.00 37.12      6
ATOM   20163  O   ASN N1466      77.410  75.190  44.148  1.00 36.93      8
ATOM   20164  N   VAL N1467      76.593  77.247  44.543  1.00 24.65      7
ATOM   20165  CA  VAL N1467      75.407  76.952  43.761  1.00 21.85      6
ATOM   20166  CB  VAL N1467      74.289  78.074  43.883  1.00 15.60      6
ATOM   20167  CG1 VAL N1467      73.494  78.226  42.570  1.00 13.99      6
ATOM   20168  CG2 VAL N1467      73.302  77.693  44.989  1.00 14.47      6
ATOM   20169  C   VAL N1467      75.895  76.796  42.335  1.00 21.30      6
ATOM   20170  O   VAL N1467      75.772  75.730  41.759  1.00 20.21      8
ATOM   20171  N   ILE N1468      76.488  77.847  41.783  1.00 28.96      7
ATOM   20172  CA  ILE N1468      76.984  77.816  40.413  1.00 28.15      6
ATOM   20173  CB  ILE N1468      78.039  78.901  40.221  1.00 28.50      6
ATOM   20174  CG2 ILE N1468      78.665  78.784  38.840  1.00 28.28      6
ATOM   20175  CG1 ILE N1468      77.386  80.265  40.454  1.00 28.03      6
ATOM   20176  CD1 ILE N1468      78.363  81.388  40.570  1.00 27.94      6
ATOM   20177  C   ILE N1468      77.546  76.447  40.020  1.00 28.16      6
ATOM   20178  O   ILE N1468      77.203  75.911  38.969  1.00 27.93      8
ATOM   20179  N   LEU N1469      78.400  75.879  40.866  1.00 41.09      7
ATOM   20180  CA  LEU N1469      78.958  74.557  40.588  1.00 41.71      6
ATOM   20181  CB  LEU N1469      80.166  74.254  41.478  1.00 40.28      6
ATOM   20182  CG  LEU N1469      81.322  75.226  41.701  1.00 40.00      6
ATOM   20183  CD1 LEU N1469      82.281  74.557  42.666  1.00 39.89      6
ATOM   20184  CD2 LEU N1469      82.032  75.575  40.407  1.00 39.68      6
ATOM   20185  C   LEU N1469      77.877  73.529  40.911  1.00 42.41      6
ATOM   20186  O   LEU N1469      78.174  72.357  41.100  1.00 43.44      8
ATOM   20187  N   GLY N1470      76.628  73.975  40.992  1.00 32.51      7
ATOM   20188  CA  GLY N1470      75.527  73.080  41.316  1.00 31.96      6
ATOM   20189  C   GLY N1470      75.752  72.287  42.594  1.00 31.97      6
ATOM   20190  O   GLY N1470      74.978  71.372  42.913  1.00 30.88      8
ATOM   20191  N   ARG N1471      76.801  72.653  43.332  1.00 71.36      7
ATOM   20192  CA  ARG N1471      77.159  71.956  44.561  1.00 72.29      6
ATOM   20193  CB  ARG N1471      78.442  72.535  45.166  1.00 73.54      6
ATOM   20194  CG  ARG N1471      79.732  71.877  44.668  1.00 77.78      6
ATOM   20195  CD  ARG N1471      80.914  72.219  45.583  1.00 81.38      6
ATOM   20196  NE  ARG N1471      80.775  71.640  46.923  1.00 85.00      7
ATOM   20197  CZ  ARG N1471      81.475  72.026  47.992  1.00 86.24      6
ATOM   20198  NH1 ARG N1471      82.369  72.999  47.894  1.00 86.86      7
ATOM   20199  NH2 ARG N1471      81.282  71.444  49.168  1.00 86.50      7
ATOM   20200  C   ARG N1471      76.082  71.871  45.629  1.00 70.82      6
ATOM   20201  O   ARG N1471      74.929  72.247  45.406  1.00 70.77      8
ATOM   20202  N   LEU N1472      76.490  71.377  46.794  1.00 48.63      7
ATOM   20203  CA  LEU N1472      75.598  71.150  47.920  1.00 45.59      6
ATOM   20204  CB  LEU N1472      75.887  69.763  48.483  1.00 33.60      6
ATOM   20205  CG  LEU N1472      75.373  69.335  49.852  1.00 32.93      6
ATOM   20206  CD1 LEU N1472      73.873  69.393  49.905  1.00 33.13      6
ATOM   20207  CD2 LEU N1472      75.852  67.924  50.115  1.00 33.31      6
```

361

```
ATOM    20208  C    LEU N1472    75.630  72.163  49.047  1.00  43.50    6
ATOM    20209  O    LEU N1472    76.224  71.901  50.086  1.00  42.73    8
ATOM    20210  N    ILE N1473    74.978  73.304  48.838  1.00  40.42    7
ATOM    20211  CA   ILE N1473    74.878  74.383  49.820  1.00  40.08    6
ATOM    20212  CB   ILE N1473    73.407  74.622  50.203  1.00  25.68    6
ATOM    20213  CG2  ILE N1473    73.314  75.499  51.428  1.00  24.29    6
ATOM    20214  CG1  ILE N1473    72.670  75.293  49.054  1.00  26.68    6
ATOM    20215  CD1  ILE N1473    73.169  76.692  48.733  1.00  27.55    6
ATOM    20216  C    ILE N1473    75.653  74.208  51.128  1.00  41.31    6
ATOM    20217  O    ILE N1473    75.399  73.281  51.903  1.00  42.70    8
ATOM    20218  N    PRO N1474    76.609  75.105  51.401  1.00  63.72    7
ATOM    20219  CD   PRO N1474    77.206  76.163  50.569  1.00  14.38    6
ATOM    20220  CA   PRO N1474    77.336  74.937  52.660  1.00  63.88    6
ATOM    20221  CB   PRO N1474    78.427  75.990  52.583  1.00  13.87    6
ATOM    20222  CG   PRO N1474    77.891  77.001  51.597  1.00  13.87    6
ATOM    20223  C    PRO N1474    76.417  75.142  53.853  1.00  65.05    6
ATOM    20224  O    PRO N1474    76.455  74.372  54.797  1.00  65.63    8
ATOM    20225  N    ALA N1475    75.584  76.175  53.809  1.00  31.81    7
ATOM    20226  CA   ALA N1475    74.645  76.454  54.898  1.00  32.54    6
ATOM    20227  CB   ALA N1475    73.958  77.792  54.651  1.00124.85    6
ATOM    20228  C    ALA N1475    73.589  75.348  55.065  1.00  31.96    6
ATOM    20229  O    ALA N1475    73.535  74.400  54.281  1.00  31.04    8
ATOM    20230  N    GLY N1476    72.755  75.474  56.093  1.00  41.35    7
ATOM    20231  CA   GLY N1476    71.713  74.488  56.337  1.00  42.52    6
ATOM    20232  C    GLY N1476    72.203  73.068  56.545  1.00  42.98    6
ATOM    20233  O    GLY N1476    73.299  72.861  57.057  1.00  42.28    8
ATOM    20234  N    THR N1477    71.397  72.081  56.165  1.00  41.50    7
ATOM    20235  CA   THR N1477    71.813  70.693  56.313  1.00  42.80    6
ATOM    20236  CB   THR N1477    70.900  69.719  55.538  1.00  44.03    6
ATOM    20237  OG1  THR N1477    70.315  70.388  54.417  1.00  42.93    8
ATOM    20238  CG2  THR N1477    69.821  69.182  56.428  1.00  44.34    6
ATOM    20239  C    THR N1477    73.220  70.529  55.761  1.00  44.91    6
ATOM    20240  O    THR N1477    73.857  69.502  55.977  1.00  45.66    8
ATOM    20241  N    GLY N1478    73.693  71.546  55.045  1.00  57.56    7
ATOM    20242  CA   GLY N1478    75.016  71.493  54.458  1.00  60.51    6
ATOM    20243  C    GLY N1478    76.146  71.867  55.396  1.00  63.35    6
ATOM    20244  O    GLY N1478    77.295  71.519  55.134  1.00  64.75    8
ATOM    20245  N    SER N1479    75.842  72.573  56.482  1.00  38.88    7
ATOM    20246  CA   SER N1479    76.881  72.984  57.426  1.00  40.64    6
ATOM    20247  CB   SER N1479    76.273  73.723  58.623  1.00103.40    6
ATOM    20248  OG   SER N1479    76.032  75.088  58.327  1.00106.29    8
ATOM    20249  C    SER N1479    77.695  71.809  57.933  1.00  40.61    6
ATOM    20250  O    SER N1479    77.139  70.843  58.454  1.00  40.38    8
ATOM    20251  N    ASP N1480    79.012  71.893  57.780  1.00  35.78    7
ATOM    20252  CA   ASP N1480    79.881  70.825  58.248  1.00  38.88    6
ATOM    20253  CB   ASP N1480    81.345  71.232  58.137  1.00103.63    6
ATOM    20254  CG   ASP N1480    81.699  71.722  56.761  1.00107.23    6
ATOM    20255  OD1  ASP N1480    81.244  71.093  55.779  1.00108.03    8
ATOM    20256  OD2  ASP N1480    82.436  72.728  56.661  1.00108.79    8
ATOM    20257  C    ASP N1480    79.542  70.545  59.703  1.00  39.79    6
ATOM    20258  O    ASP N1480    79.769  69.439  60.210  1.00  40.17    8
ATOM    20259  N    PHE N1481    78.993  71.549  60.380  1.00  40.34    7
ATOM    20260  CA   PHE N1481    78.626  71.366  61.763  1.00  41.24    6
ATOM    20261  CB   PHE N1481    78.029  72.619  62.371  1.00  47.30    6
ATOM    20262  CG   PHE N1481    77.659  72.437  63.796  1.00  47.35    6
ATOM    20263  CD1  PHE N1481    78.645  72.292  64.759  1.00  47.07    6
```

ATOM	20264	CD2	PHE	N1481	76.335	72.264	64.161	1.00	47.62	6
ATOM	20265	CE1	PHE	N1481	78.320	71.968	66.065	1.00	47.25	6
ATOM	20266	CE2	PHE	N1481	75.995	71.939	65.462	1.00	47.72	6
ATOM	20267	CZ	PHE	N1481	76.989	71.786	66.420	1.00	47.42	6
ATOM	20268	C	PHE	N1481	77.594	70.268	61.802	1.00	43.00	6
ATOM	20269	O	PHE	N1481	77.103	69.884	62.867	1.00	43.61	8
ATOM	20270	N	VAL	N1482	77.246	69.777	60.620	1.00	18.61	7
ATOM	20271	CA	VAL	N1482	76.295	68.684	60.508	1.00	20.44	6
ATOM	20272	CB	VAL	N1482	74.867	69.188	60.406	1.00	13.87	6
ATOM	20273	CG1	VAL	N1482	74.013	68.067	59.914	1.00	14.05	6
ATOM	20274	CG2	VAL	N1482	74.373	69.672	61.791	1.00	13.87	6
ATOM	20275	C	VAL	N1482	76.603	67.803	59.298	1.00	22.04	6
ATOM	20276	O	VAL	N1482	76.646	68.282	58.163	1.00	20.60	8
ATOM	20277	N	ARG	N1483	76.817	66.518	59.572	1.00	84.77	7
ATOM	20278	CA	ARG	N1483	77.146	65.498	58.573	1.00	88.49	6
ATOM	20279	CB	ARG	N1483	78.210	66.009	57.595	1.00	128.16	6
ATOM	20280	CG	ARG	N1483	77.691	66.726	56.344	1.00	131.30	6
ATOM	20281	CD	ARG	N1483	78.849	67.421	55.628	1.00	134.10	6
ATOM	20282	NE	ARG	N1483	78.475	68.033	54.355	1.00	134.95	7
ATOM	20283	CZ	ARG	N1483	79.325	68.698	53.577	1.00	134.62	6
ATOM	20284	NH1	ARG	N1483	80.591	68.834	53.949	1.00	133.57	7
ATOM	20285	NH2	ARG	N1483	78.917	69.220	52.426	1.00	134.01	7
ATOM	20286	C	ARG	N1483	77.717	64.287	59.331	1.00	89.29	6
ATOM	20287	O	ARG	N1483	78.645	63.624	58.861	1.00	89.58	8
ATOM	20288	N	PHE	N1484	77.153	64.010	60.503	1.00	83.42	7
ATOM	20289	CA	PHE	N1484	77.595	62.911	61.355	1.00	84.53	6
ATOM	20290	CB	PHE	N1484	77.049	63.105	62.764	1.00	140.17	6
ATOM	20291	CG	PHE	N1484	75.823	63.938	62.801	1.00	142.07	6
ATOM	20292	CD1	PHE	N1484	74.663	63.506	62.182	1.00	143.59	6
ATOM	20293	CD2	PHE	N1484	75.847	65.196	63.383	1.00	142.71	6
ATOM	20294	CE1	PHE	N1484	73.552	64.323	62.122	1.00	144.75	6
ATOM	20295	CE2	PHE	N1484	74.744	66.016	63.328	1.00	144.32	6
ATOM	20296	CZ	PHE	N1484	73.591	65.580	62.700	1.00	144.79	6
ATOM	20297	C	PHE	N1484	77.219	61.529	60.880	1.00	85.03	6
ATOM	20298	O	PHE	N1484	76.295	61.355	60.082	1.00	85.54	8
ATOM	20299	N	THR	N1485	77.957	60.549	61.399	1.00	134.51	7
ATOM	20300	CA	THR	N1485	77.750	59.139	61.091	1.00	134.23	6
ATOM	20301	CB	THR	N1485	78.650	58.249	61.982	1.00	93.85	6
ATOM	20302	OG1	THR	N1485	80.028	58.545	61.719	1.00	93.85	8
ATOM	20303	CG2	THR	N1485	78.402	56.786	61.697	1.00	94.16	6
ATOM	20304	C	THR	N1485	76.285	58.871	61.391	1.00	134.08	6
ATOM	20305	O	THR	N1485	75.561	58.296	60.580	1.00	134.47	8
ATOM	20306	N	ALA	N1486	75.872	59.309	62.574	1.00	66.77	7
ATOM	20307	CA	ALA	N1486	74.506	59.197	63.043	1.00	66.38	6
ATOM	20308	CB	ALA	N1486	73.726	60.410	62.571	1.00	114.27	6
ATOM	20309	C	ALA	N1486	73.745	57.927	62.686	1.00	66.41	6
ATOM	20310	O	ALA	N1486	72.555	57.988	62.368	1.00	66.19	8
ATOM	20311	N	VAL	N1487	74.405	56.774	62.738	1.00	59.05	7
ATOM	20312	CA	VAL	N1487	73.720	55.516	62.421	1.00	59.37	6
ATOM	20313	CB	VAL	N1487	73.994	55.049	60.954	1.00	98.48	6
ATOM	20314	CG1	VAL	N1487	73.064	53.895	60.578	1.00	98.08	6
ATOM	20315	CG2	VAL	N1487	73.784	56.195	59.999	1.00	98.69	6
ATOM	20316	C	VAL	N1487	74.106	54.384	63.373	1.00	59.66	6
ATOM	20317	O	VAL	N1487	75.019	53.611	63.113	1.00	59.03	8
ATOM	20318	N	ALA	N1488	73.411	54.305	64.491	1.00	68.33	7
ATOM	20319	CA	ALA	N1488	73.665	53.252	65.444	1.00	69.99	6

```
ATOM   20320   CB   ALA N1488      74.141   53.834   66.752   1.00 90.26      6
ATOM   20321   C    ALA N1488      72.307   52.589   65.606   1.00 71.13      8
ATOM   20322   O    ALA N1488      71.356   52.958   64.919   1.00 71.37      8
ATOM   20323   N    ALA N1489      72.206   51.610   66.496   1.00 79.81      7
ATOM   20324   CA   ALA N1489      70.940   50.919   66.721   1.00 80.53      6
ATOM   20325   CB   ALA N1489      70.651   49.953   65.553   1.00 13.87      6
ATOM   20326   C    ALA N1489      71.014   50.155   68.036   1.00 81.77      6
ATOM   20327   O    ALA N1489      70.143   49.342   68.339   1.00 82.54      8
ATOM   20328   N    ALA N1490      72.053   50.440   68.819   1.00140.13      7
ATOM   20329   CA   ALA N1490      72.285   49.762   70.093   1.00141.33      6
ATOM   20330   CB   ALA N1490      71.019   49.773   70.954   1.00 60.30      6
ATOM   20331   C    ALA N1490      72.691   48.331   69.762   1.00142.29      6
ATOM   20332   O    ALA N1490      73.817   47.918   70.023   1.00142.26      8
ATOM   20333   N    ALA N1491      71.765   47.587   69.168   1.00183.88      7
ATOM   20334   CA   ALA N1491      72.023   46.212   68.770   1.00185.16      6
ATOM   20335   CB   ALA N1491      70.736   45.564   68.292   1.00 69.81      6
ATOM   20336   C    ALA N1491      73.058   46.227   67.647   1.00186.29      6
ATOM   20337   O    ALA N1491      74.142   45.654   67.775   1.00186.59      8
ATOM   20338   N    ALA N1492      72.714   46.894   66.548   1.00 98.54      7
ATOM   20339   CA   ALA N1492      73.608   47.007   65.403   1.00 99.18      6
ATOM   20340   CB   ALA N1492      72.869   47.617   64.221   1.00 79.26      6
ATOM   20341   C    ALA N1492      74.803   47.872   65.779   1.00100.00      6
ATOM   20342   O    ALA N1492      75.558   48.322   64.919   1.00100.52      8
ATOM   20343   N    ALA N1493      74.953   48.109   67.077   1.00152.21      7
ATOM   20344   CA   ALA N1493      76.053   48.903   67.602   1.00153.89      6
ATOM   20345   CB   ALA N1493      75.529   49.935   68.591   1.00143.28      6
ATOM   20346   C    ALA N1493      77.017   47.951   68.293   1.00154.75      6
ATOM   20347   O    ALA N1493      78.227   48.174   68.319   1.00155.15      8
ATOM   20348   N    ALA N1494      76.462   46.884   68.856   1.00168.39      7
ATOM   20349   CA   ALA N1494      77.261   45.877   69.534   1.00168.85      6
ATOM   20350   CB   ALA N1494      76.362   44.928   70.302   1.00 88.46      6
ATOM   20351   C    ALA N1494      78.032   45.112   68.471   1.00169.44      6
ATOM   20352   O    ALA N1494      79.202   44.777   68.653   1.00170.15      8
ATOM   20353   N    ALA N1495      77.360   44.847   67.355   1.00107.85      7
ATOM   20354   CA   ALA N1495      77.957   44.114   66.245   1.00108.59      6
ATOM   20355   CB   ALA N1495      76.928   43.941   65.126   1.00 99.66      6
ATOM   20356   C    ALA N1495      79.218   44.790   65.702   1.00109.01      6
ATOM   20357   O    ALA N1495      80.188   44.122   65.343   1.00109.17      8
ATOM   20358   N    ALA N1496      79.202   46.115   65.646   1.00117.72      7
ATOM   20359   CA   ALA N1496      80.348   46.856   65.142   1.00118.58      6
ATOM   20360   CB   ALA N1496      79.910   48.237   64.669   1.00 83.39      6
ATOM   20361   C    ALA N1496      81.429   46.985   66.208   1.00119.53      6
ATOM   20362   O    ALA N1496      82.460   47.617   65.982   1.00119.91      8
ATOM   20363   N    ALA N1497      81.195   46.383   67.369   1.00181.59      7
ATOM   20364   CA   ALA N1497      82.166   46.441   68.456   1.00182.69      6
ATOM   20365   CB   ALA N1497      81.580   47.196   69.641   1.00142.39      6
ATOM   20366   C    ALA N1497      82.609   45.046   68.887   1.00182.80      6
ATOM   20367   O    ALA N1497      83.823   44.770   68.794   1.00183.54      8
ATOM   20368   OXT  ALA N1497      81.746   44.248   69.313   1.00143.12      8
ATOM   20369   CB   ALA H    1     49.035   69.727   66.035   1.00112.96      6
ATOM   20370   C    ALA H    1     49.981   69.624   63.746   1.00 72.10      6
ATOM   20371   O    ALA H    1     50.157   70.628   63.051   1.00 71.61      8
ATOM   20372   N    ALA H    1     48.217   68.062   64.422   1.00 71.93      7
ATOM   20373   CA   ALA H    1     48.724   69.457   64.581   1.00 71.95      6
ATOM   20374   N    ALA H    2     50.850   68.621   63.833   1.00134.16      7
ATOM   20375   CA   ALA H    2     52.107   68.587   63.096   1.00133.75      6
```

364

```
ATOM  20376  CB   ALA H   2      53.179  69.381  63.841  1.00 71.36      6
ATOM  20377  C    ALA H   2      52.544  67.128  62.915  1.00133.97      6
ATOM  20378  O    ALA H   2      51.817  66.320  62.332  1.00134.70      8
ATOM  20379  N    GLU H   3      53.721  66.789  63.427  1.00105.72      7
ATOM  20380  CA   GLU H   3      54.237  65.432  63.302  1.00104.48      6
ATOM  20381  CB   GLU H   3      55.663  65.487  62.749  1.00120.78      6
ATOM  20382  CG   GLU H   3      55.797  66.283  61.455  1.00123.15      6
ATOM  20383  CD   GLU H   3      55.151  65.605  60.257  1.00124.33      6
ATOM  20384  OE1  GLU H   3      53.959  65.229  60.340  1.00125.09      8
ATOM  20385  OE2  GLU H   3      55.842  65.461  59.224  1.00125.28      8
ATOM  20386  C    GLU H   3      54.208  64.701  64.649  1.00102.31      6
ATOM  20387  O    GLU H   3      53.635  65.195  65.620  1.00102.17      8
ATOM  20388  N    PRO H   4      54.801  63.498  64.717  1.00 90.20      7
ATOM  20389  CD   PRO H   4      55.167  62.633  63.579  1.00 84.46      6
ATOM  20390  CA   PRO H   4      54.826  62.729  65.966  1.00 88.65      6
ATOM  20391  CB   PRO H   4      55.444  61.404  65.533  1.00 83.40      6
ATOM  20392  CG   PRO H   4      54.938  61.256  64.138  1.00 83.61      6
ATOM  20393  C    PRO H   4      55.617  63.385  67.100  1.00 87.20      6
ATOM  20394  O    PRO H   4      56.449  62.732  67.733  1.00 87.10      8
ATOM  20395  N    GLY H   5      55.356  64.671  67.342  1.00 88.38      7
ATOM  20396  CA   GLY H   5      56.030  65.409  68.404  1.00 86.20      6
ATOM  20397  C    GLY H   5      57.320  66.138  68.045  1.00 84.54      6
ATOM  20398  O    GLY H   5      58.320  65.977  68.742  1.00 84.56      8
ATOM  20399  N    ILE H   6      57.297  66.955  66.988  1.00 52.67      7
ATOM  20400  CA   ILE H   6      58.481  67.693  66.536  1.00 50.67      6
ATOM  20401  CB   ILE H   6      58.143  68.779  65.513  1.00 61.49      6
ATOM  20402  CG2  ILE H   6      59.427  69.435  65.030  1.00 60.62      6
ATOM  20403  CG1  ILE H   6      57.418  68.176  64.317  1.00 62.92      6
ATOM  20404  CD1  ILE H   6      58.336  67.421  63.372  1.00 64.69      6
ATOM  20405  C    ILE H   6      59.199  68.396  67.659  1.00 48.98      6
ATOM  20406  O    ILE H   6      60.416  68.305  67.781  1.00 49.28      8
ATOM  20407  N    ASP H   7      58.442  69.125  68.467  1.00 44.73      7
ATOM  20408  CA   ASP H   7      59.032  69.855  69.576  1.00 43.88      6
ATOM  20409  CB   ASP H   7      57.935  70.446  70.472  1.00 93.66      6
ATOM  20410  CG   ASP H   7      57.368  71.754  69.923  1.00 96.14      6
ATOM  20411  OD1  ASP H   7      58.089  72.775  69.926  1.00 97.83      8
ATOM  20412  OD2  ASP H   7      56.202  71.766  69.483  1.00 96.45      8
ATOM  20413  C    ASP H   7      59.927  68.929  70.371  1.00 41.56      6
ATOM  20414  O    ASP H   7      61.016  69.308  70.783  1.00 40.75      8
ATOM  20415  N    LYS H   8      59.466  67.701  70.558  1.00 30.16      7
ATOM  20416  CA   LYS H   8      60.217  66.713  71.314  1.00 29.00      6
ATOM  20417  CB   LYS H   8      59.405  65.418  71.412  1.00163.90      6
ATOM  20418  CG   LYS H   8      57.941  65.640  71.785  1.00166.14      6
ATOM  20419  CD   LYS H   8      57.143  64.338  71.831  1.00167.38      6
ATOM  20420  CE   LYS H   8      57.576  63.440  72.983  1.00167.20      6
ATOM  20421  NZ   LYS H   8      56.760  62.192  73.053  1.00166.69      7
ATOM  20422  C    LYS H   8      61.571  66.435  70.659  1.00 27.00      6
ATOM  20423  O    LYS H   8      62.599  66.358  71.326  1.00 25.22      8
ATOM  20424  N    LEU H   9      61.566  66.290  69.344  1.00 66.58      7
ATOM  20425  CA   LEU H   9      62.789  66.009  68.616  1.00 65.94      6
ATOM  20426  CB   LEU H   9      62.450  65.695  67.163  1.00 21.16      6
ATOM  20427  CG   LEU H   9      61.299  64.705  66.971  1.00 19.23      6
ATOM  20428  CD1  LEU H   9      60.943  64.599  65.493  1.00 18.22      6
ATOM  20429  CD2  LEU H   9      61.687  63.358  67.546  1.00 18.68      6
ATOM  20430  C    LEU H   9      63.736  67.200  68.691  1.00 66.72      6
ATOM  20431  O    LEU H   9      64.894  67.070  69.089  1.00 67.80      8
```

365

```
ATOM    20432  N    PHE H  10      63.231  68.366  68.309  1.00 58.43      7
ATOM    20433  CA   PHE H  10      64.017  69.589  68.326  1.00 57.27      6
ATOM    20434  CB   PHE H  10      63.131  70.775  67.984  1.00 26.49      6
ATOM    20435  CG   PHE H  10      62.910  70.956  66.522  1.00 24.11      6
ATOM    20436  CD1  PHE H  10      61.743  71.532  66.057  1.00 23.18      6
ATOM    20437  CD2  PHE H  10      63.891  70.596  65.608  1.00 24.17      6
ATOM    20438  CE1  PHE H  10      61.555  71.750  64.711  1.00 23.51      6
ATOM    20439  CE2  PHE H  10      63.710  70.812  64.255  1.00 24.06      6
ATOM    20440  CZ   PHE H  10      62.540  71.391  63.806  1.00 23.71      6
ATOM    20441  C    PHE H  10      64.658  69.814  69.674  1.00 58.57      6
ATOM    20442  O    PHE H  10      65.482  70.706  69.835  1.00 60.31      8
ATOM    20443  N    GLY H  11      64.259  69.013  70.651  1.00 54.15      7
ATOM    20444  CA   GLY H  11      64.834  69.139  71.973  1.00 55.56      6
ATOM    20445  C    GLY H  11      66.113  68.342  71.980  1.00 56.47      6
ATOM    20446  O    GLY H  11      67.191  68.874  72.245  1.00 55.94      8
ATOM    20447  N    MET H  12      65.987  67.058  71.664  1.00 87.20      7
ATOM    20448  CA   MET H  12      67.129  66.159  71.620  1.00 88.91      6
ATOM    20449  CB   MET H  12      66.763  64.885  70.857  1.00 96.90      6
ATOM    20450  CG   MET H  12      65.521  64.194  71.372  1.00 98.92      6
ATOM    20451  SD   MET H  12      65.249  62.631  70.536  1.00102.56     16
ATOM    20452  CE   MET H  12      64.730  63.194  68.925  1.00100.52      6
ATOM    20453  C    MET H  12      68.332  66.820  70.953  1.00 89.24      6
ATOM    20454  O    MET H  12      69.283  67.229  71.627  1.00 89.46      8
ATOM    20455  N    VAL H  13      68.283  66.926  69.627  1.00 55.36      7
ATOM    20456  CA   VAL H  13      69.376  67.528  68.871  1.00 55.34      6
ATOM    20457  CB   VAL H  13      69.072  67.517  67.349  1.00 87.88      6
ATOM    20458  CG1  VAL H  13      69.008  66.091  66.838  1.00 87.79      6
ATOM    20459  CG2  VAL H  13      67.760  68.203  67.081  1.00 88.70      6
ATOM    20460  C    VAL H  13      69.657  68.964  69.329  1.00 54.34      6
ATOM    20461  O    VAL H  13      68.882  69.545  70.097  1.00 53.82      8
ATOM    20462  N    ASP H  14      70.778  69.521  68.871  1.00 80.64      7
ATOM    20463  CA   ASP H  14      71.163  70.887  69.220  1.00 80.29      6
ATOM    20464  CB   ASP H  14      72.656  70.970  69.511  1.00 82.79      6
ATOM    20465  CG   ASP H  14      73.494  70.843  68.261  1.00 84.35      6
ATOM    20466  OD1  ASP H  14      73.491  69.757  67.649  1.00 85.24      8
ATOM    20467  OD2  ASP H  14      74.141  71.837  67.879  1.00 84.99      8
ATOM    20468  C    ASP H  14      70.851  71.784  68.037  1.00 78.85      6
ATOM    20469  O    ASP H  14      70.039  72.700  68.140  1.00 79.58      8
ATOM    20470  N    SER H  15      71.510  71.508  66.915  1.00 40.97      7
ATOM    20471  CA   SER H  15      71.317  72.266  65.689  1.00 37.59      6
ATOM    20472  CB   SER H  15      72.552  72.139  64.794  1.00 34.50      6
ATOM    20473  OG   SER H  15      72.529  73.107  63.756  1.00 31.69      8
ATOM    20474  C    SER H  15      70.089  71.724  64.961  1.00 36.60      6
ATOM    20475  O    SER H  15      70.110  70.608  64.458  1.00 36.72      8
ATOM    20476  N    LYS H  16      69.020  72.515  64.931  1.00 45.79      7
ATOM    20477  CA   LYS H  16      67.771  72.145  64.268  1.00 45.58      6
ATOM    20478  CB   LYS H  16      66.979  73.409  63.928  1.00 60.78      6
ATOM    20479  CG   LYS H  16      65.704  73.187  63.138  1.00 60.97      6
ATOM    20480  CD   LYS H  16      65.193  74.496  62.524  1.00 61.73      6
ATOM    20481  CE   LYS H  16      63.842  74.310  61.830  1.00 62.66      6
ATOM    20482  NZ   LYS H  16      63.377  75.511  61.077  1.00 62.70      7
ATOM    20483  C    LYS H  16      67.993  71.325  62.995  1.00 45.74      6
ATOM    20484  O    LYS H  16      67.141  70.530  62.613  1.00 45.21      8
ATOM    20485  N    TYR H  17      69.136  71.510  62.343  1.00 27.19      7
ATOM    20486  CA   TYR H  17      69.438  70.778  61.113  1.00 27.85      6
ATOM    20487  CB   TYR H  17      70.414  71.575  60.246  1.00 54.79      6
```

366

ATOM	20488	CG	TYR	H	17	69.883	72.940	59.911	1.00	53.62	6
ATOM	20489	CD1	TYR	H	17	69.640	73.858	60.915	1.00	52.27	6
ATOM	20490	CE1	TYR	H	17	69.090	75.079	60.641	1.00	51.90	6
ATOM	20491	CD2	TYR	H	17	69.563	73.289	58.607	1.00	53.37	6
ATOM	20492	CE2	TYR	H	17	69.008	74.517	58.320	1.00	52.95	6
ATOM	20493	CZ	TYR	H	17	68.774	75.408	59.349	1.00	52.81	6
ATOM	20494	OH	TYR	H	17	68.218	76.638	59.111	1.00	53.12	8
ATOM	20495	C	TYR	H	17	70.003	69.407	61.391	1.00	28.58	6
ATOM	20496	O	TYR	H	17	70.093	68.576	60.497	1.00	28.23	8
ATOM	20497	N	ARG	H	18	70.397	69.191	62.638	1.00	55.84	7
ATOM	20498	CA	ARG	H	18	70.935	67.910	63.060	1.00	56.85	6
ATOM	20499	CB	ARG	H	18	71.381	67.973	64.532	1.00	86.52	6
ATOM	20500	CG	ARG	H	18	71.976	66.678	65.097	1.00	87.17	6
ATOM	20501	CD	ARG	H	18	73.125	66.954	66.074	1.00	89.03	6
ATOM	20502	NE	ARG	H	18	74.182	67.758	65.451	1.00	91.03	7
ATOM	20503	CZ	ARG	H	18	75.372	68.007	65.994	1.00	90.39	6
ATOM	20504	NH1	ARG	H	18	75.678	67.516	67.184	1.00	90.95	7
ATOM	20505	NH2	ARG	H	18	76.260	68.749	65.345	1.00	88.61	7
ATOM	20506	C	ARG	H	18	69.790	66.924	62.884	1.00	56.72	6
ATOM	20507	O	ARG	H	18	69.828	66.074	61.993	1.00	57.05	8
ATOM	20508	N	LEU	H	19	68.765	67.062	63.722	1.00	68.32	7
ATOM	20509	CA	LEU	H	19	67.592	66.197	63.654	1.00	68.14	6
ATOM	20510	CB	LEU	H	19	66.440	66.832	64.429	1.00	47.50	6
ATOM	20511	CG	LEU	H	19	65.045	66.297	64.121	1.00	47.31	6
ATOM	20512	CD1	LEU	H	19	64.966	64.837	64.491	1.00	47.18	6
ATOM	20513	CD2	LEU	H	19	64.022	67.104	64.884	1.00	48.01	6
ATOM	20514	C	LEU	H	19	67.160	65.945	62.210	1.00	67.80	6
ATOM	20515	O	LEU	H	19	66.854	64.814	61.840	1.00	68.35	8
ATOM	20516	N	THR	H	20	67.132	67.002	61.402	1.00	51.77	7
ATOM	20517	CA	THR	H	20	66.751	66.877	60.000	1.00	51.37	6
ATOM	20518	CB	THR	H	20	66.867	68.228	59.250	1.00	52.73	6
ATOM	20519	OG1	THR	H	20	65.932	69.165	59.796	1.00	53.84	8
ATOM	20520	CG2	THR	H	20	66.577	68.047	57.769	1.00	52.85	6
ATOM	20521	C	THR	H	20	67.672	65.876	59.318	1.00	49.82	6
ATOM	20522	O	THR	H	20	67.218	64.974	58.623	1.00	49.18	8
ATOM	20523	N	VAL	H	21	68.970	66.044	59.536	1.00	56.67	7
ATOM	20524	CA	VAL	H	21	69.989	65.182	58.950	1.00	56.33	6
ATOM	20525	CB	VAL	H	21	71.363	65.733	59.252	1.00	47.80	6
ATOM	20526	CG1	VAL	H	21	72.431	64.728	58.857	1.00	46.78	6
ATOM	20527	CG2	VAL	H	21	71.526	67.049	58.514	1.00	49.31	6
ATOM	20528	C	VAL	H	21	69.949	63.735	59.401	1.00	55.74	6
ATOM	20529	O	VAL	H	21	69.989	62.826	58.576	1.00	56.18	8
ATOM	20530	N	VAL	H	22	69.897	63.528	60.712	1.00	35.41	7
ATOM	20531	CA	VAL	H	22	69.842	62.191	61.287	1.00	33.46	6
ATOM	20532	CB	VAL	H	22	69.914	62.261	62.811	1.00	29.04	6
ATOM	20533	CG1	VAL	H	22	69.348	61.000	63.412	1.00	29.07	6
ATOM	20534	CG2	VAL	H	22	71.345	62.448	63.248	1.00	27.73	6
ATOM	20535	C	VAL	H	22	68.570	61.445	60.889	1.00	33.06	6
ATOM	20536	O	VAL	H	22	68.629	60.292	60.491	1.00	32.88	8
ATOM	20537	N	VAL	H	23	67.422	62.095	61.021	1.00	26.43	7
ATOM	20538	CA	VAL	H	23	66.159	61.475	60.649	1.00	26.88	6
ATOM	20539	CB	VAL	H	23	64.966	62.446	60.831	1.00	31.77	6
ATOM	20540	CG1	VAL	H	23	63.881	62.155	59.807	1.00	30.73	6
ATOM	20541	CG2	VAL	H	23	64.394	62.318	62.227	1.00	31.75	6
ATOM	20542	C	VAL	H	23	66.233	61.103	59.186	1.00	28.31	6
ATOM	20543	O	VAL	H	23	65.663	60.100	58.762	1.00	29.36	8

```
ATOM   20544  N    ALA H  24      66.941  61.922  58.418  1.00 25.22      7
ATOM   20545  CA   ALA H  24      67.086  61.712  56.978  1.00 27.09      6
ATOM   20546  CB   ALA H  24      67.767  62.901  56.350  1.00 29.93      6
ATOM   20547  C    ALA H  24      67.854  60.463  56.623  1.00 28.67      6
ATOM   20548  O    ALA H  24      67.341  59.595  55.919  1.00 28.38      8
ATOM   20549  N    LYS H  25      69.097  60.398  57.097  1.00 59.88      7
ATOM   20550  CA   LYS H  25      69.971  59.264  56.833  1.00 62.39      6
ATOM   20551  CB   LYS H  25      71.355  59.504  57.434  1.00104.23      6
ATOM   20552  CG   LYS H  25      72.443  58.609  56.854  1.00107.91      6
ATOM   20553  CD   LYS H  25      72.234  57.130  57.207  1.00111.99      6
ATOM   20554  CE   LYS H  25      73.392  56.246  56.721  1.00114.74      6
ATOM   20555  NZ   LYS H  25      73.418  54.895  57.369  1.00116.09      7
ATOM   20556  C    LYS H  25      69.335  58.050  57.462  1.00 63.18      6
ATOM   20557  O    LYS H  25      69.321  56.972  56.883  1.00 62.18      8
ATOM   20558  N    ARG H  26      68.799  58.240  58.659  1.00 53.40      7
ATOM   20559  CA   ARG H  26      68.143  57.157  59.377  1.00 54.97      6
ATOM   20560  CB   ARG H  26      67.382  57.713  60.589  1.00 50.83      6
ATOM   20561  CG   ARG H  26      66.674  56.645  61.389  1.00 48.91      6
ATOM   20562  CD   ARG H  26      67.586  55.454  61.584  1.00 46.66      6
ATOM   20563  NE   ARG H  26      66.826  54.237  61.809  1.00 45.56      7
ATOM   20564  CZ   ARG H  26      67.335  53.023  61.689  1.00 46.00      6
ATOM   20565  NH1  ARG H  26      68.605  52.881  61.337  1.00 46.68      7
ATOM   20566  NH2  ARG H  26      66.583  51.962  61.940  1.00 45.14      7
ATOM   20567  C    ARG H  26      67.186  56.436  58.438  1.00 56.51      6
ATOM   20568  O    ARG H  26      67.410  55.293  58.053  1.00 56.26      8
ATOM   20569  N    ALA H  27      66.112  57.120  58.075  1.00 61.12      7
ATOM   20570  CA   ALA H  27      65.144  56.557  57.162  1.00 63.44      6
ATOM   20571  CB   ALA H  27      64.129  57.633  56.764  1.00 48.64      6
ATOM   20572  C    ALA H  27      65.940  56.081  55.948  1.00 65.57      6
ATOM   20573  O    ALA H  27      65.574  55.099  55.300  1.00 65.48      8
ATOM   20574  N    GLN H  28      67.043  56.782  55.672  1.00 65.54      7
ATOM   20575  CA   GLN H  28      67.927  56.474  54.545  1.00 68.75      6
ATOM   20576  CB   GLN H  28      68.654  57.731  54.071  1.00110.27      6
ATOM   20577  CG   GLN H  28      69.526  57.494  52.855  1.00112.49      6
ATOM   20578  CD   GLN H  28      70.453  58.647  52.568  1.00114.71      6
ATOM   20579  OE1  GLN H  28      71.287  59.005  53.396  1.00116.10      8
ATOM   20580  NE2  GLN H  28      70.316  59.237  51.387  1.00116.29      7
ATOM   20581  C    GLN H  28      68.964  55.424  54.921  1.00 70.11      6
ATOM   20582  O    GLN H  28      70.167  55.652  54.798  1.00 70.08      8
ATOM   20583  N    GLN H  29      68.479  54.279  55.387  1.00103.66      7
ATOM   20584  CA   GLN H  29      69.312  53.152  55.802  1.00105.28      6
ATOM   20585  CB   GLN H  29      70.363  53.610  56.825  1.00193.59      6
ATOM   20586  CG   GLN H  29      71.553  52.662  57.012  1.00197.64      6
ATOM   20587  CD   GLN H  29      72.482  52.606  55.800  1.00199.79      6
ATOM   20588  OE1  GLN H  29      72.958  53.633  55.315  1.00201.30      8
ATOM   20589  NE2  GLN H  29      72.752  51.399  55.319  1.00199.49      7
ATOM   20590  C    GLN H  29      68.315  52.192  56.447  1.00104.60      6
ATOM   20591  O    GLN H  29      68.576  51.001  56.627  1.00103.61      8
ATOM   20592  N    LEU H  30      67.162  52.750  56.793  1.00 78.51      7
ATOM   20593  CA   LEU H  30      66.072  52.005  57.395  1.00 77.56      6
ATOM   20594  CB   LEU H  30      65.098  52.984  58.065  1.00 76.20      6
ATOM   20595  CG   LEU H  30      63.918  52.502  58.918  1.00 76.30      6
ATOM   20596  CD1  LEU H  30      64.383  52.072  60.301  1.00 76.47      6
ATOM   20597  CD2  LEU H  30      62.925  53.645  59.055  1.00 76.36      6
ATOM   20598  C    LEU H  30      65.433  51.360  56.180  1.00 76.72      6
ATOM   20599  O    LEU H  30      66.124  50.776  55.351  1.00 77.37      8
```

```
ATOM   20600  N    LEU H  31      64.119  51.484  56.069  1.00 41.99      7
ATOM   20601  CA   LEU H  31      63.377  50.952  54.933  1.00 40.88      6
ATOM   20602  CB   LEU H  31      61.876  51.298  55.100  1.00 41.76      6
ATOM   20603  CG   LEU H  31      60.787  50.270  55.501  1.00 40.39      6
ATOM   20604  CD1  LEU H  31      61.199  49.438  56.687  1.00 39.57      6
ATOM   20605  CD2  LEU H  31      59.499  51.010  55.827  1.00 40.61      6
ATOM   20606  C    LEU H  31      63.935  51.527  53.602  1.00 40.65      6
ATOM   20607  O    LEU H  31      63.234  51.581  52.592  1.00 39.31      8
ATOM   20608  N    ARG H  32      65.193  51.966  53.612  1.00 78.66      7
ATOM   20609  CA   ARG H  32      65.837  52.497  52.410  1.00 80.40      6
ATOM   20610  CB   ARG H  32      66.870  53.572  52.786  1.00 95.88      6
ATOM   20611  CG   ARG H  32      68.337  53.135  52.725  1.00 95.99      6
ATOM   20612  CD   ARG H  32      69.102  53.870  51.623  1.00 95.72      6
ATOM   20613  NE   ARG H  32      70.518  53.505  51.598  1.00 95.98      7
ATOM   20614  CZ   ARG H  32      71.375  53.863  50.644  1.00 95.67      6
ATOM   20615  NH1  ARG H  32      70.970  54.603  49.620  1.00 95.63      7
ATOM   20616  NH2  ARG H  32      72.640  53.475  50.713  1.00 95.56      7
ATOM   20617  C    ARG H  32      66.524  51.315  51.720  1.00 81.03      6
ATOM   20618  O    ARG H  32      66.714  51.287  50.497  1.00 81.36      8
ATOM   20619  N    HIS H  33      66.903  50.344  52.541  1.00109.02      7
ATOM   20620  CA   HIS H  33      67.542  49.116  52.087  1.00108.53      6
ATOM   20621  CB   HIS H  33      69.003  49.055  52.552  1.00122.48      6
ATOM   20622  CG   HIS H  33      69.993  49.546  51.541  1.00124.33      6
ATOM   20623  CD2  HIS H  33      70.889  50.560  51.590  1.00125.29      6
ATOM   20624  ND1  HIS H  33      70.174  48.935  50.320  1.00125.38      7
ATOM   20625  CE1  HIS H  33      71.141  49.550  49.660  1.00125.83      6
ATOM   20626  NE2  HIS H  33      71.592  50.540  50.409  1.00125.62      7
ATOM   20627  C    HIS H  33      66.761  47.995  52.762  1.00107.63      6
ATOM   20628  O    HIS H  33      65.845  47.405  52.188  1.00108.16      8
ATOM   20629  N    ALA H  34      67.128  47.746  54.011  1.00 31.83      7
ATOM   20630  CA   ALA H  34      66.522  46.722  54.832  1.00 30.66      6
ATOM   20631  CB   ALA H  34      67.342  46.556  56.117  1.00 42.18      6
ATOM   20632  C    ALA H  34      65.070  47.028  55.168  1.00 30.40      6
ATOM   20633  O    ALA H  34      64.273  47.361  54.294  1.00 29.31      8
ATOM   20634  N    ALA H  35      64.747  46.899  56.449  1.00 82.73      7
ATOM   20635  CA   ALA H  35      63.408  47.135  56.976  1.00 84.31      6
ATOM   20636  CB   ALA H  35      62.374  46.385  56.155  1.00112.48      6
ATOM   20637  C    ALA H  35      63.444  46.597  58.405  1.00 84.82      6
ATOM   20638  O    ALA H  35      62.571  46.872  59.231  1.00 85.14      8
ATOM   20639  N    ALA H  36      64.491  45.830  58.678  1.00 78.81      7
ATOM   20640  CA   ALA H  36      64.697  45.233  59.977  1.00 79.13      6
ATOM   20641  CB   ALA H  36      65.125  43.816  59.797  1.00 13.87      6
ATOM   20642  C    ALA H  36      65.714  45.999  60.808  1.00 80.29      6
ATOM   20643  O    ALA H  36      66.760  45.469  61.200  1.00 80.93      8
ATOM   20644  N    ASN H  37      65.407  47.265  61.055  1.00 95.62      7
ATOM   20645  CA   ASN H  37      66.278  48.130  61.853  1.00 96.26      6
ATOM   20646  CB   ASN H  37      67.041  49.105  60.960  1.00 60.61      6
ATOM   20647  CG   ASN H  37      67.714  48.411  59.801  1.00 60.22      6
ATOM   20648  OD1  ASN H  37      68.195  47.283  59.949  1.00 60.57      8
ATOM   20649  ND2  ASN H  37      67.784  49.076  58.657  1.00 58.82      7
ATOM   20650  C    ASN H  37      65.288  48.893  62.706  1.00 97.83      6
ATOM   20651  O    ASN H  37      65.603  49.921  63.309  1.00 97.88      8
ATOM   20652  N    THR H  38      64.069  48.372  62.734  1.00 94.83      7
ATOM   20653  CA   THR H  38      62.985  48.962  63.495  1.00 96.49      6
ATOM   20654  CB   THR H  38      61.680  48.219  63.200  1.00123.38      6
ATOM   20655  OG1  THR H  38      61.414  48.265  61.790  1.00123.47      8
```

369

```
ATOM  20656  CG2 THR H  38    60.526  48.845  63.963  1.00123.16    6
ATOM  20657  C   THR H  38    63.284  48.884  64.981  1.00 97.60    6
ATOM  20658  O   THR H  38    64.127  48.109  65.422  1.00 98.49    8
ATOM  20659  N   VAL H  39    62.582  49.699  65.751  1.00 75.84    7
ATOM  20660  CA  VAL H  39    62.751  49.738  67.195  1.00 76.63    6
ATOM  20661  CB  VAL H  39    63.574  50.982  67.627  1.00 75.51    6
ATOM  20662  CG1 VAL H  39    63.757  51.001  69.129  1.00 75.66    6
ATOM  20663  CG2 VAL H  39    64.921  50.965  66.920  1.00 74.82    6
ATOM  20664  C   VAL H  39    61.327  49.873  67.730  1.00 77.84    6
ATOM  20665  O   VAL H  39    61.088  49.895  68.937  1.00 77.57    8
ATOM  20666  N   LEU H  40    60.379  49.945  66.804  1.00122.58    7
ATOM  20667  CA  LEU H  40    58.983  50.129  67.140  1.00124.80    6
ATOM  20668  CB  LEU H  40    58.451  51.322  66.357  1.00 89.47    6
ATOM  20669  CG  LEU H  40    59.504  52.361  65.979  1.00 89.93    6
ATOM  20670  CD1 LEU H  40    58.894  53.377  65.035  1.00 90.11    6
ATOM  20671  CD2 LEU H  40    60.058  53.028  67.230  1.00 90.05    6
ATOM  20672  C   LEU H  40    58.146  48.897  66.824  1.00126.55    6
ATOM  20673  O   LEU H  40    56.909  48.964  66.797  1.00126.66    8
ATOM  20674  N   ALA H  41    58.802  47.767  66.599  1.00208.87    7
ATOM  20675  CA  ALA H  41    58.080  46.544  66.270  1.00208.87    6
ATOM  20676  CB  ALA H  41    58.997  45.650  65.409  1.00161.16    6
ATOM  20677  C   ALA H  41    57.462  45.725  67.399  1.00208.87    6
ATOM  20678  O   ALA H  41    56.910  44.660  67.158  1.00208.87    8
ATOM  20679  N   PRO H  42    57.541  46.200  68.650  1.00208.87    7
ATOM  20680  CD  PRO H  42    58.372  47.229  69.296  1.00169.16    6
ATOM  20681  CA  PRO H  42    56.923  45.345  69.671  1.00208.87    6
ATOM  20682  CB  PRO H  42    57.598  45.806  70.979  1.00169.61    6
ATOM  20683  CG  PRO H  42    57.858  47.257  70.709  1.00169.89    6
ATOM  20684  C   PRO H  42    55.402  45.465  69.767  1.00208.87    6
ATOM  20685  O   PRO H  42    54.684  44.471  69.976  1.00208.87    8
ATOM  20686  N   ALA H  43    54.912  46.683  69.572  1.00166.32    7
ATOM  20687  CA  ALA H  43    53.484  46.970  69.646  1.00165.47    6
ATOM  20688  CB  ALA H  43    52.945  46.587  71.015  1.00 82.37    6
ATOM  20689  C   ALA H  43    53.325  48.471  69.414  1.00164.85    6
ATOM  20690  O   ALA H  43    52.211  49.003  69.426  1.00164.86    8
ATOM  20691  N   GLU H  44    54.462  49.141  69.220  1.00115.40    7
ATOM  20692  CA  GLU H  44    54.509  50.579  68.984  1.00114.09    6
ATOM  20693  CB  GLU H  44    55.446  51.252  69.998  1.00 68.90    6
ATOM  20694  CG  GLU H  44    56.815  50.602  70.134  1.00 68.56    6
ATOM  20695  CD  GLU H  44    57.746  51.359  71.073  1.00 68.07    6
ATOM  20696  OE1 GLU H  44    57.288  51.768  72.154  1.00 68.52    8
ATOM  20697  OE2 GLU H  44    58.933  51.543  70.728  1.00 67.29    8
ATOM  20698  C   GLU H  44    55.003  50.856  67.571  1.00113.37    6
ATOM  20699  O   GLU H  44    55.866  51.703  67.361  1.00113.69    8
ATOM  20700  N   ALA H  45    54.446  50.144  66.600  1.00102.32    7
ATOM  20701  CA  ALA H  45    54.854  50.318  65.217  1.00101.09    6
ATOM  20702  CB  ALA H  45    55.026  48.959  64.554  1.00111.56    6
ATOM  20703  C   ALA H  45    53.864  51.168  64.420  1.00100.08    6
ATOM  20704  O   ALA H  45    52.647  51.053  64.582  1.00 99.68    8
ATOM  20705  N   PRO H  46    54.385  52.054  63.551  1.00108.75    7
ATOM  20706  CD  PRO H  46    55.813  52.404  63.443  1.00 70.08    6
ATOM  20707  CA  PRO H  46    53.574  52.938  62.707  1.00107.38    6
ATOM  20708  CB  PRO H  46    54.627  53.732  61.934  1.00 68.99    6
ATOM  20709  CG  PRO H  46    55.765  53.802  62.893  1.00 69.22    6
ATOM  20710  C   PRO H  46    52.655  52.147  61.771  1.00106.25    6
ATOM  20711  O   PRO H  46    53.111  51.276  61.030  1.00106.74    8
```

370

```
ATOM   20712  N   LYS H  47      51.363  52.449  61.805  1.00 77.55      7
ATOM   20713  CA  LYS H  47      50.398  51.763  60.955  1.00 76.32      6
ATOM   20714  CB  LYS H  47      49.602  50.768  61.788  1.00 60.45      6
ATOM   20715  CG  LYS H  47      50.488  49.829  62.600  1.00 59.93      6
ATOM   20716  CD  LYS H  47      49.690  48.672  63.200  1.00 60.60      6
ATOM   20717  CE  LYS H  47      49.929  47.357  62.445  1.00 61.71      6
ATOM   20718  NZ  LYS H  47      48.915  46.301  62.780  1.00 63.05      7
ATOM   20719  C   LYS H  47      49.471  52.779  60.298  1.00 76.31      6
ATOM   20720  O   LYS H  47      49.301  53.886  60.798  1.00 76.41      8
ATOM   20721  N   MET H  48      48.874  52.397  59.175  1.00136.18      7
ATOM   20722  CA  MET H  48      47.990  53.283  58.426  1.00136.16      6
ATOM   20723  CB  MET H  48      48.345  53.195  56.946  1.00 59.72      6
ATOM   20724  CG  MET H  48      47.728  54.261  56.105  1.00 59.53      6
ATOM   20725  SD  MET H  48      48.121  54.004  54.390  1.00 58.70     16
ATOM   20726  CE  MET H  48      49.888  54.095  54.463  1.00 59.27      6
ATOM   20727  C   MET H  48      46.503  52.976  58.618  1.00136.90      6
ATOM   20728  O   MET H  48      46.059  52.706  59.732  1.00138.26      8
ATOM   20729  N   ARG H  49      45.741  53.023  57.526  1.00 98.70      7
ATOM   20730  CA  ARG H  49      44.304  52.740  57.549  1.00 99.46      6
ATOM   20731  CB  ARG H  49      43.571  53.715  58.474  1.00165.52      6
ATOM   20732  CG  ARG H  49      43.250  53.181  59.864  1.00167.81      6
ATOM   20733  CD  ARG H  49      42.372  54.177  60.609  1.00169.11      6
ATOM   20734  NE  ARG H  49      42.023  53.740  61.956  1.00170.49      7
ATOM   20735  CZ  ARG H  49      41.245  54.432  62.784  1.00171.18      6
ATOM   20736  NH1 ARG H  49      40.731  55.596  62.400  1.00170.50      7
ATOM   20737  NH2 ARG H  49      40.979  53.964  63.996  1.00171.83      7
ATOM   20738  C   ARG H  49      43.696  52.840  56.152  1.00 99.81      6
ATOM   20739  O   ARG H  49      43.645  53.924  55.569  1.00100.57      8
ATOM   20740  N   THR H  50      43.226  51.714  55.621  1.00 79.76      7
ATOM   20741  CA  THR H  50      42.612  51.686  54.291  1.00 80.24      6
ATOM   20742  CB  THR H  50      43.688  51.772  53.168  1.00161.47      6
ATOM   20743  OG1 THR H  50      44.432  52.990  53.304  1.00162.18      8
ATOM   20744  CG2 THR H  50      43.036  51.753  51.791  1.00161.65      6
ATOM   20745  C   THR H  50      41.773  50.420  54.073  1.00 80.46      6
ATOM   20746  O   THR H  50      42.195  49.319  54.424  1.00 80.69      8
ATOM   20747  N   ALA H  51      40.587  50.608  53.493  1.00170.99      7
ATOM   20748  CA  ALA H  51      39.633  49.540  53.179  1.00171.40      6
ATOM   20749  CB  ALA H  51      39.772  49.144  51.708  1.00135.49      6
ATOM   20750  C   ALA H  51      39.688  48.288  54.055  1.00171.67      6
ATOM   20751  O   ALA H  51      38.722  47.961  54.746  1.00171.50      8
ATOM   20752  N   ALA H  52      40.813  47.584  54.022  1.00123.85      7
ATOM   20753  CA  ALA H  52      40.963  46.368  54.806  1.00124.49      6
ATOM   20754  CB  ALA H  52      41.502  45.261  53.918  1.00 35.38      6
ATOM   20755  C   ALA H  52      41.843  46.510  56.049  1.00125.38      6
ATOM   20756  O   ALA H  52      42.619  45.610  56.363  1.00126.00      8
ATOM   20757  N   GLY H  53      41.729  47.631  56.754  1.00116.12      7
ATOM   20758  CA  GLY H  53      42.521  47.817  57.959  1.00115.99      6
ATOM   20759  C   GLY H  53      43.816  48.601  57.825  1.00115.70      6
ATOM   20760  O   GLY H  53      43.972  49.434  56.934  1.00116.78      8
ATOM   20761  N   LEU H  54      44.749  48.312  58.726  1.00 60.84      7
ATOM   20762  CA  LEU H  54      46.052  48.971  58.782  1.00 60.49      6
ATOM   20763  CB  LEU H  54      46.635  48.814  60.186  1.00 79.09      6
ATOM   20764  CG  LEU H  54      46.064  49.648  61.336  1.00 78.68      6
ATOM   20765  CD1 LEU H  54      44.560  49.858  61.201  1.00 78.11      6
ATOM   20766  CD2 LEU H  54      46.405  48.940  62.635  1.00 78.38      6
ATOM   20767  C   LEU H  54      47.069  48.469  57.762  1.00 60.34      6
```

371

```
ATOM  20768  O    LEU H  54     46.745  47.670  56.891  1.00  60.52      8
ATOM  20769  N    ALA H  55     48.304  48.948  57.889  1.00  77.77      7
ATOM  20770  CA   ALA H  55     49.411  48.574  57.004  1.00  78.07      6
ATOM  20771  CB   ALA H  55     48.928  48.452  55.557  1.00  81.78      6
ATOM  20772  C    ALA H  55     50.490  49.648  57.100  1.00  78.45      6
ATOM  20773  O    ALA H  55     50.365  50.710  56.493  1.00  78.70      8
ATOM  20774  N    ALA H  56     51.541  49.374  57.868  1.00 173.90      7
ATOM  20775  CA   ALA H  56     52.640  50.324  58.050  1.00 174.29      6
ATOM  20776  CB   ALA H  56     53.917  49.573  58.392  1.00 124.91      6
ATOM  20777  C    ALA H  56     52.854  51.176  56.801  1.00 174.77      6
ATOM  20778  O    ALA H  56     52.824  50.658  55.684  1.00 175.59      8
ATOM  20779  N    ASP H  57     53.073  52.478  56.982  1.00  71.54      7
ATOM  20780  CA   ASP H  57     53.272  53.358  55.830  1.00  70.65      6
ATOM  20781  CB   ASP H  57     52.810  54.792  56.144  1.00 164.99      6
ATOM  20782  CG   ASP H  57     53.538  55.405  57.321  1.00 166.34      6
ATOM  20783  OD1  ASP H  57     54.461  54.755  57.856  1.00 164.60      8
ATOM  20784  OD2  ASP H  57     53.189  56.542  57.706  1.00 168.33      8
ATOM  20785  C    ASP H  57     54.702  53.370  55.286  1.00  69.56      6
ATOM  20786  O    ASP H  57     55.667  53.530  56.029  1.00  70.12      8
ATOM  20787  N    PRO H  58     54.846  53.197  53.965  1.00 175.82      7
ATOM  20788  CD   PRO H  58     53.734  53.009  53.018  1.00 126.29      6
ATOM  20789  CA   PRO H  58     56.132  53.174  53.261  1.00 175.53      6
ATOM  20790  CB   PRO H  58     55.714  53.109  51.796  1.00 127.10      6
ATOM  20791  CG   PRO H  58     54.419  52.358  51.856  1.00 127.14      6
ATOM  20792  C    PRO H  58     57.033  54.375  53.549  1.00 174.24      6
ATOM  20793  O    PRO H  58     58.243  54.321  53.325  1.00 174.62      8
ATOM  20794  N    ASN H  59     56.438  55.455  54.041  1.00  50.78      7
ATOM  20795  CA   ASN H  59     57.180  56.672  54.356  1.00  48.68      6
ATOM  20796  CB   ASN H  59     56.226  57.742  54.893  1.00 106.68      6
ATOM  20797  CG   ASN H  59     56.842  59.120  54.901  1.00 108.47      6
ATOM  20798  OD1  ASN H  59     57.139  59.683  53.852  1.00 109.20      8
ATOM  20799  ND2  ASN H  59     57.042  59.669  56.084  1.00 108.55      7
ATOM  20800  C    ASN H  59     58.237  56.349  55.402  1.00  46.84      6
ATOM  20801  O    ASN H  59     57.916  56.157  56.575  1.00  47.13      8
ATOM  20802  N    ALA H  60     59.495  56.299  54.970  1.00  93.90      7
ATOM  20803  CA   ALA H  60     60.618  55.975  55.850  1.00  90.64      6
ATOM  20804  CB   ALA H  60     61.875  55.758  55.005  1.00  49.58      6
ATOM  20805  C    ALA H  60     60.886  56.995  56.974  1.00  88.46      6
ATOM  20806  O    ALA H  60     61.051  56.614  58.138  1.00  88.36      8
ATOM  20807  N    VAL H  61     60.936  58.280  56.629  1.00  51.76      7
ATOM  20808  CA   VAL H  61     61.156  59.337  57.622  1.00  48.32      6
ATOM  20809  CB   VAL H  61     60.849  60.739  57.044  1.00  27.29      6
ATOM  20810  CG1  VAL H  61     62.109  61.396  56.500  1.00  26.01      6
ATOM  20811  CG2  VAL H  61     59.811  60.604  55.957  1.00  26.76      6
ATOM  20812  C    VAL H  61     60.219  59.146  58.813  1.00  46.60      6
ATOM  20813  O    VAL H  61     60.590  59.401  59.963  1.00  46.66      8
ATOM  20814  N    THR H  62     58.996  58.707  58.524  1.00  32.73      7
ATOM  20815  CA   THR H  62     57.996  58.512  59.564  1.00  30.58      6
ATOM  20816  CB   THR H  62     56.754  57.746  59.039  1.00  91.22      6
ATOM  20817  OG1  THR H  62     56.239  58.408  57.877  1.00  92.33      8
ATOM  20818  CG2  THR H  62     55.655  57.705  60.111  1.00  92.71      6
ATOM  20819  C    THR H  62     58.598  57.752  60.730  1.00  28.54      6
ATOM  20820  O    THR H  62     58.818  58.321  61.798  1.00  27.90      8
ATOM  20821  N    TRP H  63     58.878  56.470  60.518  1.00  47.29      7
ATOM  20822  CA   TRP H  63     59.441  55.649  61.571  1.00  47.12      6
ATOM  20823  CB   TRP H  63     60.002  54.369  60.998  1.00  55.89      6
```

372

ATOM	20824	CG	TRP	H	63	58.961	53.500	60.430	1.00	56.38	6
ATOM	20825	CD2	TRP	H	63	58.571	52.217	60.912	1.00	56.28	6
ATOM	20826	CE2	TRP	H	63	57.597	51.718	60.028	1.00	56.76	6
ATOM	20827	CE3	TRP	H	63	58.953	51.435	62.010	1.00	56.09	6
ATOM	20828	CD1	TRP	H	63	58.224	53.730	59.313	1.00	57.16	6
ATOM	20829	NE1	TRP	H	63	57.403	52.664	59.059	1.00	57.27	7
ATOM	20830	CZ2	TRP	H	63	56.999	50.471	60.201	1.00	57.29	6
ATOM	20831	CZ3	TRP	H	63	58.358	50.197	62.184	1.00	56.08	6
ATOM	20832	CH2	TRP	H	63	57.392	49.726	61.283	1.00	56.89	6
ATOM	20833	C	TRP	H	63	60.536	56.409	62.283	1.00	47.29	6
ATOM	20834	O	TRP	H	63	60.435	56.678	63.482	1.00	46.74	8
ATOM	20835	N	ALA	H	64	61.570	56.773	61.533	1.00	43.86	7
ATOM	20836	CA	ALA	H	64	62.696	57.500	62.098	1.00	44.72	6
ATOM	20837	CB	ALA	H	64	63.431	58.249	61.004	1.00	13.87	6
ATOM	20838	C	ALA	H	64	62.248	58.464	63.183	1.00	45.71	6
ATOM	20839	O	ALA	H	64	62.508	58.239	64.361	1.00	46.59	8
ATOM	20840	N	MET	H	65	61.563	59.530	62.792	1.00	63.70	7
ATOM	20841	CA	MET	H	65	61.116	60.505	63.770	1.00	63.47	6
ATOM	20842	CB	MET	H	65	60.134	61.486	63.133	1.00	47.39	6
ATOM	20843	CG	MET	H	65	60.811	62.505	62.230	1.00	45.91	6
ATOM	20844	SD	MET	H	65	59.660	63.619	61.419	1.00	44.79	16
ATOM	20845	CE	MET	H	65	59.613	62.879	59.784	1.00	42.87	6
ATOM	20846	C	MET	H	65	60.495	59.832	64.985	1.00	64.92	6
ATOM	20847	O	MET	H	65	60.580	60.354	66.093	1.00	65.17	8
ATOM	20848	N	LYS	H	66	59.893	58.663	64.788	1.00	59.31	7
ATOM	20849	CA	LYS	H	66	59.270	57.944	65.894	1.00	61.28	6
ATOM	20850	CB	LYS	H	66	58.046	57.169	65.399	1.00	151.34	6
ATOM	20851	CG	LYS	H	66	56.948	58.054	64.827	1.00	153.48	6
ATOM	20852	CD	LYS	H	66	55.742	57.243	64.380	1.00	154.12	6
ATOM	20853	CE	LYS	H	66	54.685	58.137	63.748	1.00	154.76	6
ATOM	20854	NZ	LYS	H	66	53.501	57.379	63.263	1.00	156.89	7
ATOM	20855	C	LYS	H	66	60.258	56.990	66.551	1.00	61.91	6
ATOM	20856	O	LYS	H	66	60.190	56.727	67.752	1.00	62.08	8
ATOM	20857	N	GLU	H	67	61.180	56.483	65.747	1.00	103.46	7
ATOM	20858	CA	GLU	H	67	62.203	55.552	66.198	1.00	104.40	6
ATOM	20859	CB	GLU	H	67	62.722	54.786	64.975	1.00	70.74	6
ATOM	20860	CG	GLU	H	67	63.845	53.800	65.192	1.00	71.76	6
ATOM	20861	CD	GLU	H	67	64.382	53.273	63.870	1.00	73.23	6
ATOM	20862	OE1	GLU	H	67	63.738	52.419	63.225	1.00	72.69	8
ATOM	20863	OE2	GLU	H	67	65.458	53.735	63.465	1.00	75.45	8
ATOM	20864	C	GLU	H	67	63.327	56.337	66.879	1.00	104.13	6
ATOM	20865	O	GLU	H	67	64.159	55.767	67.588	1.00	104.77	8
ATOM	20866	N	LEU	H	68	63.325	57.652	66.669	1.00	56.33	7
ATOM	20867	CA	LEU	H	68	64.341	58.545	67.230	1.00	56.02	6
ATOM	20868	CB	LEU	H	68	64.668	59.652	66.212	1.00	69.52	6
ATOM	20869	CG	LEU	H	68	65.819	60.625	66.479	1.00	70.25	6
ATOM	20870	CD1	LEU	H	68	67.132	59.886	66.657	1.00	70.86	6
ATOM	20871	CD2	LEU	H	68	65.928	61.566	65.313	1.00	69.91	6
ATOM	20872	C	LEU	H	68	63.876	59.159	68.554	1.00	55.23	6
ATOM	20873	O	LEU	H	68	64.683	59.520	69.416	1.00	54.45	8
ATOM	20874	N	LEU	H	69	62.565	59.269	68.709	1.00	33.13	7
ATOM	20875	CA	LEU	H	69	62.004	59.831	69.915	1.00	33.85	6
ATOM	20876	CB	LEU	H	69	60.554	60.216	69.683	1.00	55.55	6
ATOM	20877	CG	LEU	H	69	60.003	61.108	70.785	1.00	56.38	6
ATOM	20878	CD1	LEU	H	69	60.640	62.486	70.648	1.00	56.76	6
ATOM	20879	CD2	LEU	H	69	58.492	61.190	70.683	1.00	56.14	6

373

```
ATOM  20880  C    LEU H  69      62.067  58.742  70.951  1.00  35.09      6
ATOM  20881  O    LEU H  69      61.862  58.985  72.143  1.00  35.06      8
ATOM  20882  N    THR H  70      62.351  57.535  70.461  1.00  65.83      7
ATOM  20883  CA   THR H  70      62.451  56.313  71.259  1.00  66.19      6
ATOM  20884  CB   THR H  70      62.533  55.076  70.340  1.00  57.53      6
ATOM  20885  OG1  THR H  70      61.577  55.199  69.279  1.00  56.80      8
ATOM  20886  CG2  THR H  70      62.238  53.812  71.130  1.00  57.67      6
ATOM  20887  C    THR H  70      63.657  56.290  72.203  1.00  67.12      6
ATOM  20888  O    THR H  70      63.702  57.028  73.181  1.00  66.97      8
ATOM  20889  N    GLY H  71      64.635  55.442  71.916  1.00  87.16      7
ATOM  20890  CA   GLY H  71      65.794  55.377  72.786  1.00  89.30      6
ATOM  20891  C    GLY H  71      67.070  54.978  72.076  1.00  91.08      6
ATOM  20892  O    GLY H  71      68.146  55.515  72.350  1.00  90.90      8
ATOM  20893  N    ARG H  72      66.953  54.033  71.154  1.00  70.67      7
ATOM  20894  CA   ARG H  72      68.107  53.562  70.414  1.00  72.13      6
ATOM  20895  CB   ARG H  72      67.709  52.357  69.558  1.00 115.78      6
ATOM  20896  CG   ARG H  72      67.104  51.217  70.380  1.00 116.51      6
ATOM  20897  CD   ARG H  72      68.086  50.737  71.446  1.00 117.76      6
ATOM  20898  NE   ARG H  72      67.431  50.255  72.663  1.00 116.94      7
ATOM  20899  CZ   ARG H  72      68.080  49.898  73.769  1.00 115.88      6
ATOM  20900  NH1  ARG H  72      69.403  49.965  73.817  1.00 115.31      7
ATOM  20901  NH2  ARG H  72      67.407  49.481  74.834  1.00 116.05      7
ATOM  20902  C    ARG H  72      68.698  54.668  69.553  1.00  72.71      6
ATOM  20903  O    ARG H  72      68.372  55.842  69.719  1.00  73.18      8
ATOM  20904  N    LEU H  73      69.581  54.283  68.641  1.00  78.66      7
ATOM  20905  CA   LEU H  73      70.234  55.231  67.748  1.00  79.90      6
ATOM  20906  CB   LEU H  73      69.210  56.225  67.179  1.00  62.87      6
ATOM  20907  CG   LEU H  73      67.857  55.752  66.639  1.00  63.54      6
ATOM  20908  CD1  LEU H  73      67.295  56.824  65.722  1.00  62.90      6
ATOM  20909  CD2  LEU H  73      68.014  54.458  65.868  1.00  63.93      6
ATOM  20910  C    LEU H  73      71.342  56.013  68.460  1.00  81.03      6
ATOM  20911  O    LEU H  73      71.413  56.040  69.686  1.00  81.93      8
ATOM  20912  N    ALA H  74      72.199  56.652  67.673  1.00  73.20      7
ATOM  20913  CA   ALA H  74      73.294  57.463  68.195  1.00  74.49      6
ATOM  20914  CB   ALA H  74      74.435  56.571  68.633  1.00 131.27      6
ATOM  20915  C    ALA H  74      73.750  58.410  67.077  1.00  75.22      6
ATOM  20916  O    ALA H  74      73.253  58.310  65.953  1.00  75.67      8
ATOM  20917  N    PHE H  75      74.681  59.321  67.364  1.00  51.42      7
ATOM  20918  CA   PHE H  75      75.147  60.249  66.339  1.00  52.35      6
ATOM  20919  CB   PHE H  75      73.970  61.078  65.825  1.00 111.18      6
ATOM  20920  CG   PHE H  75      72.916  61.365  66.864  1.00 113.16      6
ATOM  20921  CD1  PHE H  75      73.256  61.600  68.193  1.00 114.86      6
ATOM  20922  CD2  PHE H  75      71.581  61.473  66.488  1.00 113.45      6
ATOM  20923  CE1  PHE H  75      72.281  61.946  69.128  1.00 115.47      6
ATOM  20924  CE2  PHE H  75      70.603  61.818  67.411  1.00 114.47      6
ATOM  20925  CZ   PHE H  75      70.954  62.057  68.735  1.00 115.44      6
ATOM  20926  C    PHE H  75      76.265  61.191  66.774  1.00  52.45      6
ATOM  20927  O    PHE H  75      76.148  61.855  67.794  1.00  53.14      8
ATOM  20928  N    GLY H  76      77.327  61.264  65.971  1.00  70.31      7
ATOM  20929  CA   GLY H  76      78.469  62.126  66.259  1.00  70.79      6
ATOM  20930  C    GLY H  76      79.666  61.701  65.419  1.00  71.08      6
ATOM  20931  O    GLY H  76      79.619  61.775  64.193  1.00  71.12      8
ATOM  20932  N    GLU H  77      80.751  61.279  66.059  1.00  77.05      7
ATOM  20933  CA   GLU H  77      81.915  60.797  65.319  1.00  78.21      6
ATOM  20934  CB   GLU H  77      83.201  61.459  65.814  1.00  92.11      6
ATOM  20935  CG   GLU H  77      84.450  60.998  65.072  1.00  93.17      6
```

374

```
ATOM   20936  CD   GLU H  77      84.416  61.299  63.570  1.00  94.00      6
ATOM   20937  OE1  GLU H  77      83.386  61.034  62.910  1.00  94.23      8
ATOM   20938  OE2  GLU H  77      85.437  61.788  63.041  1.00  94.19      8
ATOM   20939  C    GLU H  77      81.953  59.289  65.591  1.00  79.04      6
ATOM   20940  O    GLU H  77      82.931  58.592  65.293  1.00  79.54      8
ATOM   20941  N    ASN H  78      80.848  58.807  66.154  1.00125.12      7
ATOM   20942  CA   ASN H  78      80.649  57.411  66.501  1.00125.42      6
ATOM   20943  CB   ASN H  78      79.417  57.293  67.401  1.00204.16      6
ATOM   20944  CG   ASN H  78      78.783  55.925  67.345  1.00204.44      6
ATOM   20945  OD1  ASN H  78      78.084  55.601  66.388  1.00202.88      8
ATOM   20946  ND2  ASN H  78      79.027  55.109  68.365  1.00205.31      7
ATOM   20947  C    ASN H  78      80.516  56.487  65.300  1.00126.30      6
ATOM   20948  O    ASN H  78      80.052  56.886  64.236  1.00127.62      8
ATOM   20949  N    LEU H  79      80.934  55.243  65.511  1.00110.62      7
ATOM   20950  CA   LEU H  79      80.917  54.179  64.510  1.00111.17      6
ATOM   20951  CB   LEU H  79      79.576  54.133  63.766  1.00132.86      6
ATOM   20952  CG   LEU H  79      78.371  53.654  64.588  1.00132.88      6
ATOM   20953  CD1  LEU H  79      77.438  52.894  63.681  1.00133.18      6
ATOM   20954  CD2  LEU H  79      78.801  52.732  65.731  1.00132.83      6
ATOM   20955  C    LEU H  79      82.072  54.277  63.516  1.00111.11      6
ATOM   20956  O    LEU H  79      82.439  53.292  62.891  1.00111.12      8
ATOM   20957  N    ALA H  80      82.638  55.473  63.403  1.00122.68      7
ATOM   20958  CA   ALA H  80      83.764  55.783  62.527  1.00123.16      6
ATOM   20959  CB   ALA H  80      85.076  55.429  63.239  1.00104.62      6
ATOM   20960  C    ALA H  80      83.764  55.228  61.094  1.00123.32      6
ATOM   20961  O    ALA H  80      83.403  55.942  60.163  1.00123.48      8
ATOM   20962  N    PRO H  81      84.168  53.958  60.888  1.00118.44      7
ATOM   20963  CD   PRO H  81      84.672  52.906  61.792  1.00173.71      6
ATOM   20964  CA   PRO H  81      84.159  53.477  59.499  1.00118.82      6
ATOM   20965  CB   PRO H  81      84.817  52.101  59.606  1.00174.43      6
ATOM   20966  CG   PRO H  81      84.440  51.658  60.987  1.00174.33      6
ATOM   20967  C    PRO H  81      82.797  53.423  58.813  1.00118.74      6
ATOM   20968  O    PRO H  81      82.007  52.506  59.033  1.00118.56      8
ATOM   20969  N    ALA H  82      82.532  54.417  57.976  1.00 90.20      7
ATOM   20970  CA   ALA H  82      81.279  54.473  57.242  1.00 90.98      6
ATOM   20971  CB   ALA H  82      81.275  55.693  56.310  1.00 18.02      6
ATOM   20972  C    ALA H  82      81.218  53.176  56.445  1.00 91.69      6
ATOM   20973  O    ALA H  82      80.147  52.632  56.167  1.00 91.55      8
ATOM   20974  N    ASP H  83      82.400  52.683  56.094  1.00208.87      7
ATOM   20975  CA   ASP H  83      82.533  51.445  55.345  1.00208.87      6
ATOM   20976  CB   ASP H  83      84.012  51.162  55.069  1.00201.99      6
ATOM   20977  CG   ASP H  83      84.698  52.304  54.344  1.00202.55      6
ATOM   20978  OD1  ASP H  83      84.393  52.526  53.153  1.00203.98      8
ATOM   20979  OD2  ASP H  83      85.537  52.980  54.973  1.00201.53      8
ATOM   20980  C    ASP H  83      81.948  50.317  56.184  1.00208.87      6
ATOM   20981  O    ASP H  83      80.969  49.682  55.796  1.00208.87      8
ATOM   20982  N    ARG H  84      82.554  50.087  57.343  1.00 91.02      7
ATOM   20983  CA   ARG H  84      82.112  49.041  58.252  1.00 90.84      6
ATOM   20984  CB   ARG H  84      83.156  48.859  59.342  1.00129.70      6
ATOM   20985  CG   ARG H  84      84.554  48.797  58.770  1.00130.16      6
ATOM   20986  CD   ARG H  84      85.609  48.783  59.846  1.00130.44      6
ATOM   20987  NE   ARG H  84      86.939  48.922  59.268  1.00130.69      7
ATOM   20988  CZ   ARG H  84      88.046  49.088  59.980  1.00131.22      6
ATOM   20989  NH1  ARG H  84      87.981  49.133  61.303  1.00131.11      7
ATOM   20990  NH2  ARG H  84      89.217  49.217  59.370  1.00132.39      7
ATOM   20991  C    ARG H  84      80.766  49.421  58.859  1.00 90.69      6
```

375

```
ATOM  20992  O    ARG H  84      80.185  48.674  59.655  1.00  90.08      8
ATOM  20993  N    LEU H  85      80.286  50.599  58.473  1.00  94.70      7
ATOM  20994  CA   LEU H  85      79.012  51.111  58.945  1.00  94.79      6
ATOM  20995  CB   LEU H  85      78.971  52.632  58.794  1.00  58.74      6
ATOM  20996  CG   LEU H  85      77.645  53.320  59.129  1.00  58.15      6
ATOM  20997  CD1  LEU H  85      77.346  53.162  60.610  1.00  58.00      6
ATOM  20998  CD2  LEU H  85      77.711  54.797  58.727  1.00  58.19      6
ATOM  20999  C    LEU H  85      77.923  50.466  58.102  1.00  95.17      6
ATOM  21000  O    LEU H  85      76.769  50.367  58.522  1.00  95.24      8
ATOM  21001  N    ALA H  86      78.309  50.026  56.908  1.00 162.60      7
ATOM  21002  CA   ALA H  86      77.389  49.370  55.989  1.00 163.48      6
ATOM  21003  CB   ALA H  86      77.351  50.113  54.661  1.00 148.76      6
ATOM  21004  C    ALA H  86      77.845  47.934  55.773  1.00 163.77      6
ATOM  21005  O    ALA H  86      77.064  47.075  55.367  1.00 163.80      8
ATOM  21006  N    ALA H  87      79.120  47.681  56.037  1.00 104.44      7
ATOM  21007  CA   ALA H  87      79.664  46.341  55.876  1.00 104.76      6
ATOM  21008  CB   ALA H  87      81.168  46.348  56.136  1.00 143.84      6
ATOM  21009  C    ALA H  87      78.956  45.442  56.878  1.00 104.89      6
ATOM  21010  O    ALA H  87      78.645  44.284  56.594  1.00 104.28      8
ATOM  21011  N    ALA H  88      78.701  46.000  58.055  1.00  80.31      7
ATOM  21012  CA   ALA H  88      78.025  45.275  59.113  1.00  81.22      6
ATOM  21013  CB   ALA H  88      78.063  46.092  60.402  1.00 112.51      6
ATOM  21014  C    ALA H  88      76.582  45.004  58.683  1.00  81.94      6
ATOM  21015  O    ALA H  88      75.892  44.153  59.261  1.00  82.24      8
ATOM  21016  N    MET H  89      76.133  45.731  57.664  1.00  83.34      7
ATOM  21017  CA   MET H  89      74.782  45.564  57.145  1.00  85.09      6
ATOM  21018  CB   MET H  89      74.411  46.732  56.228  1.00 155.16      6
ATOM  21019  CG   MET H  89      74.405  48.097  56.901  1.00 156.58      6
ATOM  21020  SD   MET H  89      73.093  48.296  58.117  1.00 157.37     16
ATOM  21021  CE   MET H  89      71.678  48.571  57.029  1.00 157.12      6
ATOM  21022  C    MET H  89      74.712  44.255  56.360  1.00  85.71      6
ATOM  21023  O    MET H  89      73.627  43.721  56.115  1.00  85.41      8
ATOM  21024  N    GLU H  90      75.877  43.746  55.963  1.00 208.87      7
ATOM  21025  CA   GLU H  90      75.950  42.493  55.217  1.00 208.87      6
ATOM  21026  CB   GLU H  90      77.306  42.342  54.529  1.00 136.26      6
ATOM  21027  CG   GLU H  90      77.457  41.014  53.798  1.00 136.21      6
ATOM  21028  CD   GLU H  90      78.880  40.746  53.353  1.00 136.54      6
ATOM  21029  OE1  GLU H  90      79.460  41.610  52.666  1.00 137.49      8
ATOM  21030  OE2  GLU H  90      79.417  39.667  53.685  1.00 136.05      8
ATOM  21031  C    GLU H  90      75.763  41.333  56.177  1.00 208.87      6
ATOM  21032  O    GLU H  90      75.142  40.323  55.843  1.00 208.87      8
ATOM  21033  N    ARG H  91      76.320  41.487  57.373  1.00 172.42      7
ATOM  21034  CA   ARG H  91      76.222  40.463  58.396  1.00 172.92      6
ATOM  21035  CB   ARG H  91      76.926  40.931  59.678  1.00 130.88      6
ATOM  21036  CG   ARG H  91      77.084  39.848  60.750  1.00 131.31      6
ATOM  21037  CD   ARG H  91      77.854  40.355  61.973  1.00 131.44      6
ATOM  21038  NE   ARG H  91      77.774  39.432  63.107  1.00 131.71      7
ATOM  21039  CZ   ARG H  91      78.253  39.698  64.319  1.00 131.97      6
ATOM  21040  NH1  ARG H  91      78.849  40.858  64.557  1.00 131.86      7
ATOM  21041  NH2  ARG H  91      78.127  38.813  65.299  1.00 132.07      7
ATOM  21042  C    ARG H  91      74.746  40.185  58.658  1.00 173.25      6
ATOM  21043  O    ARG H  91      74.389  39.146  59.207  1.00 173.60      8
ATOM  21044  N    LEU H  92      73.892  41.117  58.241  1.00 114.03      7
ATOM  21045  CA   LEU H  92      72.446  40.987  58.419  1.00 114.75      6
ATOM  21046  CB   LEU H  92      72.007  41.810  59.635  1.00 107.98      6
ATOM  21047  CG   LEU H  92      71.703  41.074  60.951  1.00 108.27      6
```

376

```
ATOM   21048   CD1  LEU H  92     72.560   39.839   61.125   1.00108.03    6
ATOM   21049   CD2  LEU H  92     71.926   42.031   62.106   1.00108.24    6
ATOM   21050   C    LEU H  92     71.651   41.395   57.162   1.00115.02    6
ATOM   21051   O    LEU H  92     71.385   42.576   56.922   1.00115.36    8
ATOM   21052   N    ALA H  93     71.286   40.377   56.381   1.00107.07    7
ATOM   21053   CA   ALA H  93     70.538   40.474   55.121   1.00107.38    6
ATOM   21054   CB   ALA H  93     69.413   39.437   55.123   1.00103.93    6
ATOM   21055   C    ALA H  93     69.974   41.823   54.676   1.00107.83    6
ATOM   21056   O    ALA H  93     69.007   42.319   55.245   1.00107.51    8
ATOM   21057   N    PRO H  94     70.584   42.432   53.645   1.00125.30    7
ATOM   21058   CD   PRO H  94     72.012   42.193   53.357   1.00176.05    6
ATOM   21059   CA   PRO H  94     70.168   43.723   53.083   1.00126.22    6
ATOM   21060   CB   PRO H  94     71.460   44.514   53.110   1.00176.57    6
ATOM   21061   CG   PRO H  94     72.439   43.473   52.635   1.00176.89    6
ATOM   21062   C    PRO H  94     69.625   43.553   51.651   1.00126.83    6
ATOM   21063   O    PRO H  94     68.743   42.733   51.405   1.00126.67    8
ATOM   21064   N    ALA H  95     70.157   44.344   50.720   1.00156.49    7
ATOM   21065   CA   ALA H  95     69.785   44.281   49.304   1.00157.56    6
ATOM   21066   CB   ALA H  95     70.291   42.973   48.704   1.00137.99    6
ATOM   21067   C    ALA H  95     68.308   44.456   48.957   1.00158.51    6
ATOM   21068   O    ALA H  95     67.429   44.246   49.791   1.00158.85    8
ATOM   21069   N    ALA H  96     68.057   44.830   47.704   1.00208.87    7
ATOM   21070   CA   ALA H  96     66.704   45.037   47.194   1.00208.87    6
ATOM   21071   CB   ALA H  96     66.488   46.510   46.870   1.00128.28    6
ATOM   21072   C    ALA H  96     66.479   44.185   45.945   1.00208.87    6
ATOM   21073   O    ALA H  96     67.086   43.124   45.799   1.00208.87    8
ATOM   21074   N    ALA H  97     65.619   44.655   45.044   1.00160.31    7
ATOM   21075   CA   ALA H  97     65.313   43.912   43.820   1.00160.01    6
ATOM   21076   CB   ALA H  97     63.929   43.288   43.932   1.00165.04    6
ATOM   21077   C    ALA H  97     65.391   44.749   42.548   1.00159.89    6
ATOM   21078   O    ALA H  97     65.117   45.950   42.564   1.00160.00    8
ATOM   21079   N    GLU H  98     65.756   44.101   41.444   1.00110.78    7
ATOM   21080   CA   GLU H  98     65.862   44.776   40.150   1.00110.73    6
ATOM   21081   CB   GLU H  98     67.267   45.354   39.958   1.00111.96    6
ATOM   21082   CG   GLU H  98     67.793   46.113   41.160   1.00112.01    6
ATOM   21083   CD   GLU H  98     69.141   46.736   40.902   1.00112.19    6
ATOM   21084   OE1  GLU H  98     69.977   46.079   40.248   1.00111.88    8
ATOM   21085   OE2  GLU H  98     69.369   47.874   41.363   1.00113.13    8
ATOM   21086   C    GLU H  98     65.553   43.817   38.999   1.00110.66    6
ATOM   21087   O    GLU H  98     65.243   42.639   39.275   1.00110.53    8
ATOM   21088   OXT  GLU H  98     65.625   44.257   37.832   1.00112.67    8
ATOM   21089   MG+2 MG2 I   1     45.303   87.748   42.601   1.00145.66   12
ATOM   21090   ZN+2 ZN2 J   1     79.626   86.200   67.933   1.00 79.71   30
ATOM   21091   CB   ALA K   2    151.234  102.312  -39.510   1.00 22.98    6
ATOM   21092   C    ALA K   2    151.505  104.365  -40.898   1.00 83.38    6
ATOM   21093   O    ALA K   2    151.175  103.658  -41.854   1.00 84.27    8
ATOM   21094   N    ALA K   2    150.387  104.457  -38.685   1.00 82.24    7
ATOM   21095   CA   ALA K   2    151.466  103.808  -39.477   1.00 82.79    6
ATOM   21096   N    ALA K   3    151.919  105.625  -41.035   1.00 51.82    7
ATOM   21097   CA   ALA K   3    151.976  106.267  -42.346   1.00 51.87    6
ATOM   21098   CB   ALA K   3    150.787  107.196  -42.508   1.00101.03    6
ATOM   21099   C    ALA K   3    153.262  107.042  -42.585   1.00 51.85    6
ATOM   21100   O    ALA K   3    154.113  107.138  -41.711   1.00 51.08    8
ATOM   21101   N    ALA K   4    153.386  107.602  -43.783   1.00125.85    7
ATOM   21102   CA   ALA K   4    154.552  108.394  -44.163   1.00126.96    6
ATOM   21103   CB   ALA K   4    155.346  107.661  -45.247   1.00 55.29    6
```

377

```
ATOM  21104  C    ALA K   4      154.047 109.740 -44.687  1.00126.86      6
ATOM  21105  O    ALA K   4      152.916 109.822 -45.161  1.00127.60      8
ATOM  21106  N    ALA K   5      154.857 110.794 -44.597  1.00 32.02      7
ATOM  21107  CA   ALA K   5      154.416 112.103 -45.090  1.00 33.06      6
ATOM  21108  CB   ALA K   5      153.189 112.582 -44.302  1.00 19.54      6
ATOM  21109  C    ALA K   5      155.498 113.172 -45.040  1.00 34.91      6
ATOM  21110  O    ALA K   5      155.279 114.250 -44.471  1.00 34.68      8
ATOM  21111  N    ALA K   6      156.642 112.870 -45.656  1.00 98.60      7
ATOM  21112  CA   ALA K   6      157.816 113.753 -45.709  1.00100.93      6
ATOM  21113  CB   ALA K   6      158.805 113.233 -46.750  1.00 59.34      6
ATOM  21114  C    ALA K   6      157.551 115.238 -45.963  1.00102.61      6
ATOM  21115  O    ALA K   6      156.952 115.616 -46.968  1.00103.52      8
ATOM  21116  N    ALA K   7      158.027 116.073 -45.044  1.00 67.32      7
ATOM  21117  CA   ALA K   7      157.875 117.517 -45.135  1.00 68.87      6
ATOM  21118  CB   ALA K   7      157.396 118.086 -43.804  1.00 59.22      6
ATOM  21119  C    ALA K   7      159.251 118.059 -45.479  1.00 70.43      6
ATOM  21120  O    ALA K   7      160.210 117.286 -45.581  1.00 70.10      8
ATOM  21121  N    ALA K   8      159.345 119.381 -45.641  1.00 96.74      7
ATOM  21122  CA   ALA K   8      160.602 120.031 -46.006  1.00 98.15      6
ATOM  21123  CB   ALA K   8      160.624 120.282 -47.503  1.00 53.20      6
ATOM  21124  C    ALA K   8      160.909 121.336 -45.278  1.00 99.80      6
ATOM  21125  O    ALA K   8      161.739 121.374 -44.366  1.00100.81      8
ATOM  21126  N    ALA K   9      160.242 122.404 -45.705  1.00208.87      7
ATOM  21127  CA   ALA K   9      160.441 123.740 -45.149  1.00208.87      6
ATOM  21128  CB   ALA K   9      159.677 124.758 -45.998  1.00125.45      6
ATOM  21129  C    ALA K   9      160.070 123.913 -43.675  1.00208.87      6
ATOM  21130  O    ALA K   9      159.044 124.520 -43.363  1.00208.87      8
ATOM  21131  N    ALA K  10      160.917 123.396 -42.785  1.00 93.41      7
ATOM  21132  CA   ALA K  10      160.723 123.483 -41.337  1.00 93.15      6
ATOM  21133  CB   ALA K  10      159.242 123.417 -40.976  1.00102.75      6
ATOM  21134  C    ALA K  10      161.457 122.343 -40.657  1.00 93.40      6
ATOM  21135  O    ALA K  10      162.666 122.518 -40.399  1.00 93.15      8
ATOM  21136  OXT  ALA K  10      160.818 121.292 -40.408  1.00101.68      8
ATOM  21137  CB   ALA L  20      150.457 116.704 -34.486  1.00 66.36      6
ATOM  21138  C    ALA L  20      148.118 115.853 -34.285  1.00151.44      6
ATOM  21139  O    ALA L  20      148.618 114.738 -34.438  1.00151.99      8
ATOM  21140  N    ALA L  20      148.904 117.702 -32.833  1.00151.58      7
ATOM  21141  CA   ALA L  20      149.006 117.084 -34.186  1.00151.20      6
ATOM  21142  N    ALA L  21      146.808 116.070 -34.187  1.00 57.67      7
ATOM  21143  CA   ALA L  21      145.801 115.009 -34.274  1.00 57.13      6
ATOM  21144  CB   ALA L  21      146.357 113.798 -35.032  1.00 33.92      6
ATOM  21145  C    ALA L  21      145.269 114.562 -32.922  1.00 57.24      6
ATOM  21146  O    ALA L  21      144.757 115.363 -32.147  1.00 56.89      8
ATOM  21147  N    ALA L  22      145.388 113.265 -32.662  1.00126.91      7
ATOM  21148  CA   ALA L  22      144.933 112.655 -31.421  1.00128.43      6
ATOM  21149  CB   ALA L  22      143.412 112.529 -31.423  1.00 95.96      6
ATOM  21150  C    ALA L  22      145.576 111.280 -31.379  1.00129.17      6
ATOM  21151  O    ALA L  22      144.910 110.274 -31.137  1.00130.00      8
ATOM  21152  N    ALA L  23      146.882 111.247 -31.626  1.00103.66      7
ATOM  21153  CA   ALA L  23      147.622 109.996 -31.644  1.00102.70      6
ATOM  21154  CB   ALA L  23      147.159 109.169 -32.809  1.00 57.04      6
ATOM  21155  C    ALA L  23      149.117 110.255 -31.758  1.00102.46      6
ATOM  21156  O    ALA L  23      149.556 110.931 -32.688  1.00102.85      8
ATOM  21157  N    ALA L  24      149.891 109.702 -30.822  1.00 74.77      7
ATOM  21158  CA   ALA L  24      151.350 109.879 -30.802  1.00 74.64      6
ATOM  21159  CB   ALA L  24      151.956 109.157 -29.580  1.00 17.69      6
```

378

```
ATOM  21160  C   ALA L  24      152.031 109.394 -32.081  1.00 74.88      6
ATOM  21161  O   ALA L  24      151.611 109.746 -33.184  1.00 74.18      8
ATOM  21162  N   ALA L  25      153.093 108.605 -31.911  1.00 94.81      7
ATOM  21163  CA  ALA L  25      153.848 108.053 -33.031  1.00 96.36      6
ATOM  21164  CB  ALA L  25      153.794 109.014 -34.212  1.00 54.01      6
ATOM  21165  C   ALA L  25      155.314 107.732 -32.718  1.00 97.37      6
ATOM  21166  O   ALA L  25      155.667 107.220 -31.648  1.00 98.51      8
ATOM  21167  N   ALA L  26      156.147 108.037 -33.707  1.00 88.34      7
ATOM  21168  CA  ALA L  26      157.591 107.854 -33.677  1.00 87.95      6
ATOM  21169  CB  ALA L  26      157.943 106.396 -33.726  1.00 13.87      6
ATOM  21170  C   ALA L  26      158.024 108.552 -34.956  1.00 88.24      6
ATOM  21171  O   ALA L  26      157.241 109.298 -35.542  1.00 88.35      8
ATOM  21172  N   ALA L  27      159.246 108.323 -35.410  1.00 76.54      7
ATOM  21173  CA  ALA L  27      159.689 108.997 -36.621  1.00 77.54      6
ATOM  21174  CB  ALA L  27      160.137 110.415 -36.290  1.00 85.17      6
ATOM  21175  C   ALA L  27      160.807 108.250 -37.306  1.00 78.24      6
ATOM  21176  O   ALA L  27      161.356 107.303 -36.752  1.00 78.60      8
ATOM  21177  N   ALA L  28      161.141 108.681 -38.516  1.00 55.91      7
ATOM  21178  CA  ALA L  28      162.207 108.050 -39.273  1.00 56.77      6
ATOM  21179  CB  ALA L  28      161.822 106.625 -39.624  1.00 46.12      6
ATOM  21180  C   ALA L  28      162.499 108.841 -40.538  1.00 57.75      6
ATOM  21181  O   ALA L  28      161.829 109.828 -40.823  1.00 58.27      8
ATOM  21182  N   ALA L  29      163.516 108.405 -41.279  1.00 96.75      7
ATOM  21183  CA  ALA L  29      163.925 109.039 -42.533  1.00 98.03      6
ATOM  21184  CB  ALA L  29      162.711 109.221 -43.441  1.00147.96      6
ATOM  21185  C   ALA L  29      164.669 110.366 -42.371  1.00 98.81      6
ATOM  21186  O   ALA L  29      164.579 111.028 -41.337  1.00 98.47      8
ATOM  21187  N   ALA L  30      165.399 110.745 -43.416  1.00103.95      7
ATOM  21188  CA  ALA L  30      166.180 111.973 -43.411  1.00105.83      6
ATOM  21189  CB  ALA L  30      167.160 111.939 -42.251  1.00117.60      6
ATOM  21190  C   ALA L  30      166.941 112.148 -44.727  1.00106.99      6
ATOM  21191  O   ALA L  30      167.149 111.178 -45.452  1.00107.48      8
ATOM  21192  N   ALA L  31      167.350 113.388 -45.014  1.00111.67      7
ATOM  21193  CA  ALA L  31      168.109 113.767 -46.217  1.00111.87      6
ATOM  21194  CB  ALA L  31      168.839 112.555 -46.811  1.00111.02      6
ATOM  21195  C   ALA L  31      167.275 114.446 -47.299  1.00112.34      6
ATOM  21196  O   ALA L  31      166.042 114.409 -47.266  1.00112.64      8
ATOM  21197  N   ALA L  32      167.977 115.061 -48.253  1.00104.58      7
ATOM  21198  CA  ALA L  32      167.382 115.779 -49.382  1.00105.61      6
ATOM  21199  CB  ALA L  32      166.051 115.139 -49.788  1.00131.34      6
ATOM  21200  C   ALA L  32      167.174 117.252 -49.052  1.00106.17      6
ATOM  21201  O   ALA L  32      167.865 117.811 -48.201  1.00106.73      8
ATOM  21202  N   ALA L  33      166.230 117.879 -49.746  1.00164.25      7
ATOM  21203  CA  ALA L  33      165.906 119.281 -49.511  1.00164.22      6
ATOM  21204  CB  ALA L  33      165.548 119.970 -50.816  1.00122.86      6
ATOM  21205  C   ALA L  33      164.712 119.288 -48.572  1.00164.08      6
ATOM  21206  O   ALA L  33      164.339 120.325 -48.023  1.00164.22      8
ATOM  21207  N   ALA L  34      164.120 118.108 -48.407  1.00 94.79      7
ATOM  21208  CA  ALA L  34      162.967 117.918 -47.538  1.00 94.68      6
ATOM  21209  CB  ALA L  34      161.853 117.207 -48.293  1.00157.98      6
ATOM  21210  C   ALA L  34      163.375 117.106 -46.316  1.00 94.23      6
ATOM  21211  O   ALA L  34      164.406 116.437 -46.320  1.00 94.34      8
ATOM  21212  N   ALA L  35      162.555 117.156 -45.275  1.00121.08      7
ATOM  21213  CA  ALA L  35      162.844 116.447 -44.040  1.00120.47      6
ATOM  21214  CB  ALA L  35      161.951 116.988 -42.928  1.00141.46      6
ATOM  21215  C   ALA L  35      162.714 114.925 -44.114  1.00119.62      6
```

379

```
ATOM    21216  O    ALA L  35        163.622 114.200 -43.703  1.00120.56      8
ATOM    21217  N    ALA L  36        161.588 114.457 -44.646  1.00149.03      7
ATOM    21218  CA   ALA L  36        161.273 113.030 -44.744  1.00146.37      6
ATOM    21219  CB   ALA L  36        162.551 112.168 -44.670  1.00 13.87      6
ATOM    21220  C    ALA L  36        160.370 112.780 -43.534  1.00145.31      6
ATOM    21221  O    ALA L  36        160.173 113.687 -42.726  1.00146.01      8
ATOM    21222  N    ALA L  37        159.811 111.586 -43.385  1.00120.00      7
ATOM    21223  CA   ALA L  37        158.935 111.367 -42.240  1.00118.54      6
ATOM    21224  CB   ALA L  37        157.533 111.800 -42.593  1.00 13.87      6
ATOM    21225  C    ALA L  37        158.906 109.951 -41.685  1.00117.96      6
ATOM    21226  O    ALA L  37        159.343 109.710 -40.561  1.00118.82      8
ATOM    21227  N    ALA L  38        158.379 109.022 -42.476  1.00 54.35      7
ATOM    21228  CA   ALA L  38        158.258 107.624 -42.071  1.00 52.50      6
ATOM    21229  CB   ALA L  38        159.641 106.994 -41.961  1.00 83.35      6
ATOM    21230  C    ALA L  38        157.537 107.601 -40.725  1.00 51.68      6
ATOM    21231  O    ALA L  38        157.867 106.829 -39.827  1.00 51.03      8
ATOM    21232  N    ALA L  39        156.546 108.476 -40.605  1.00111.17      7
ATOM    21233  CA   ALA L  39        155.754 108.608 -39.392  1.00110.47      6
ATOM    21234  CB   ALA L  39        154.718 109.724 -39.580  1.00 13.87      6
ATOM    21235  C    ALA L  39        155.073 107.288 -39.010  1.00110.18      6
ATOM    21236  O    ALA L  39        154.927 106.394 -39.838  1.00110.89      8
ATOM    21237  N    ALA L  40        154.680 107.165 -37.745  1.00120.20      7
ATOM    21238  CA   ALA L  40        154.021 105.958 -37.249  1.00119.91      6
ATOM    21239  CB   ALA L  40        155.037 105.079 -36.496  1.00 46.74      6
ATOM    21240  C    ALA L  40        152.865 106.354 -36.327  1.00119.74      6
ATOM    21241  O    ALA L  40        152.980 106.272 -35.103  1.00119.60      8
ATOM    21242  N    ALA L  41        151.757 106.776 -36.941  1.00133.41      7
ATOM    21243  CA   ALA L  41        150.545 107.232 -36.246  1.00132.82      6
ATOM    21244  CB   ALA L  41        149.384 107.316 -37.244  1.00 66.73      6
ATOM    21245  C    ALA L  41        150.109 106.421 -35.026  1.00132.26      6
ATOM    21246  O    ALA L  41        150.834 105.544 -34.558  1.00132.13      8
ATOM    21247  N    ALA L  42        148.918 106.736 -34.513  1.00 46.03      7
ATOM    21248  CA   ALA L  42        148.350 106.041 -33.351  1.00 45.89      6
ATOM    21249  CB   ALA L  42        149.065 106.489 -32.056  1.00 22.55      6
ATOM    21250  C    ALA L  42        146.832 106.230 -33.212  1.00 45.75      6
ATOM    21251  O    ALA L  42        146.245 105.736 -32.258  1.00 45.13      8
ATOM    21252  N    ALA L  43        146.226 106.930 -34.178  1.00 73.48      7
ATOM    21253  CA   ALA L  43        144.787 107.246 -34.247  1.00 74.48      6
ATOM    21254  CB   ALA L  43        144.183 106.632 -35.526  1.00 13.87      6
ATOM    21255  C    ALA L  43        143.926 106.888 -33.023  1.00 75.95      6
ATOM    21256  O    ALA L  43        144.440 106.783 -31.910  1.00 76.87      8
ATOM    21257  N    ALA L  44        142.613 106.744 -33.234  1.00 68.37      7
ATOM    21258  CA   ALA L  44        141.635 106.403 -32.177  1.00 68.58      6
ATOM    21259  CB   ALA L  44        142.028 107.039 -30.815  1.00 20.12      6
ATOM    21260  C    ALA L  44        140.237 106.883 -32.575  1.00 69.21      6
ATOM    21261  O    ALA L  44        139.956 108.086 -32.558  1.00 68.33      8
ATOM    21262  N    ALA L  45        139.362 105.944 -32.921  1.00150.12      7
ATOM    21263  CA   ALA L  45        138.005 106.290 -33.332  1.00151.81      6
ATOM    21264  CB   ALA L  45        137.756 105.826 -34.766  1.00123.14      6
ATOM    21265  C    ALA L  45        136.932 105.726 -32.410  1.00152.61      6
ATOM    21266  O    ALA L  45        137.153 105.562 -31.212  1.00153.03      8
ATOM    21267  N    ALA L  46        135.767 105.437 -32.986  1.00 98.73      7
ATOM    21268  CA   ALA L  46        134.631 104.908 -32.240  1.00 99.54      6
ATOM    21269  CB   ALA L  46        133.534 104.474 -33.203  1.00171.10      6
ATOM    21270  C    ALA L  46        135.021 103.745 -31.343  1.00100.29      6
ATOM    21271  O    ALA L  46        134.824 103.871 -30.115  1.00100.99      8
```

ATOM	21272	OXT	ALA	L	46	135.514	102.728	-31.875	1.00	172.19	8
ATOM	21273	C1	RIF	R	1	48.535	97.571	24.909	1.00	48.44	6
ATOM	21274	C2	RIF	R	1	50.953	96.931	24.770	1.00	48.44	6
ATOM	21275	C3	RIF	R	1	53.514	96.552	24.129	1.00	48.44	6
ATOM	21276	C4	RIF	R	1	54.396	97.190	23.105	1.00	48.44	6
ATOM	21277	C5	RIF	R	1	55.661	97.778	23.665	1.00	48.44	6
ATOM	21278	C6	RIF	R	1	51.493	100.052	21.561	1.00	48.44	6
ATOM	21279	C7	RIF	R	1	46.186	97.136	26.970	1.00	48.44	6
ATOM	21280	C8	RIF	R	1	44.950	96.432	27.462	1.00	48.44	6
ATOM	21281	C9	RIF	R	1	44.290	95.430	26.775	1.00	48.44	6
ATOM	21282	C10	RIF	R	1	44.591	94.823	25.453	1.00	48.44	6
ATOM	21283	C11	RIF	R	1	43.975	93.708	25.000	1.00	48.44	6
ATOM	21284	C12	RIF	R	1	48.385	96.576	25.931	1.00	48.44	6
ATOM	21285	C13	RIF	R	1	44.608	92.418	24.492	1.00	48.44	6
ATOM	21286	C14	RIF	R	1	45.584	92.657	23.331	1.00	48.44	6
ATOM	21287	C15	RIF	R	1	46.563	91.517	22.975	1.00	48.44	6
ATOM	21288	C16	RIF	R	1	47.602	91.868	21.900	1.00	48.44	6
ATOM	21289	C17	RIF	R	1	49.044	92.222	22.338	1.00	48.44	6
ATOM	21290	C18	RIF	R	1	49.802	92.855	21.145	1.00	48.44	6
ATOM	21291	C19	RIF	R	1	50.807	93.988	21.507	1.00	48.44	6
ATOM	21292	C20	RIF	R	1	51.788	94.290	20.347	1.00	48.44	6
ATOM	21293	C21	RIF	R	1	52.908	95.313	20.658	1.00	48.44	6
ATOM	21294	C22	RIF	R	1	53.811	95.149	21.637	1.00	48.44	6
ATOM	21295	C23	RIF	R	1	49.457	95.732	26.315	1.00	48.44	6
ATOM	21296	C24	RIF	R	1	44.502	96.928	28.818	1.00	48.44	6
ATOM	21297	C25	RIF	R	1	49.289	94.561	27.183	1.00	48.44	6
ATOM	21298	C26	RIF	R	1	46.669	93.510	29.331	1.00	48.44	6
ATOM	21299	C27	RIF	R	1	46.063	92.158	29.654	1.00	48.44	6
ATOM	21300	C28	RIF	R	1	48.361	91.198	29.811	1.00	48.44	6
ATOM	21301	C29	RIF	R	1	48.909	92.576	29.465	1.00	48.44	6
ATOM	21302	C30	RIF	R	1	46.437	89.991	30.793	1.00	48.44	6
ATOM	21303	C31	RIF	R	1	45.276	91.766	25.727	1.00	48.44	6
ATOM	21304	C32	RIF	R	1	45.824	90.223	22.532	1.00	48.44	6
ATOM	21305	C33	RIF	R	1	49.817	91.008	22.892	1.00	48.44	6
ATOM	21306	C34	RIF	R	1	49.995	95.193	21.899	1.00	48.44	6
ATOM	21307	C35	RIF	R	1	49.896	91.280	19.314	1.00	48.44	6
ATOM	21308	C36	RIF	R	1	50.711	90.240	18.695	1.00	48.44	6
ATOM	21309	C37	RIF	R	1	51.509	94.202	17.934	1.00	48.44	6
ATOM	21310	C38	RIF	R	1	50.740	95.963	25.789	1.00	48.44	6
ATOM	21311	C39	RIF	R	1	52.255	97.183	24.089	1.00	48.44	6
ATOM	21312	C40	RIF	R	1	52.329	98.184	23.066	1.00	48.44	6
ATOM	21313	C41	RIF	R	1	51.324	99.013	22.634	1.00	48.44	6
ATOM	21314	C42	RIF	R	1	50.010	98.822	23.251	1.00	48.44	6
ATOM	21315	C43	RIF	R	1	49.837	97.769	24.323	1.00	48.44	6
ATOM	21316	N1	RIF	R	1	48.294	94.494	28.016	1.00	48.44	7
ATOM	21317	N2	RIF	R	1	47.948	93.290	28.636	1.00	48.44	7
ATOM	21318	N3	RIF	R	1	47.003	91.327	30.489	1.00	48.44	7
ATOM	21319	N4	RIF	R	1	47.096	96.286	26.473	1.00	48.44	7
ATOM	21320	O1	RIF	R	1	47.471	98.266	24.488	1.00	48.44	8
ATOM	21321	O2	RIF	R	1	49.006	99.538	22.893	1.00	48.44	8
ATOM	21322	O3	RIF	R	1	53.573	98.238	22.501	1.00	48.44	8
ATOM	21323	O4	RIF	R	1	53.974	95.598	24.821	1.00	48.44	8
ATOM	21324	O5	RIF	R	1	54.773	96.192	22.056	1.00	48.44	8
ATOM	21325	O6	RIF	R	1	50.986	94.738	19.186	1.00	48.44	8
ATOM	21326	O7	RIF	R	1	50.469	91.795	20.428	1.00	48.44	8
ATOM	21327	O8	RIF	R	1	48.856	91.664	18.913	1.00	48.44	8

```
ATOM    21328   O9    RIF  R    1        47.161   92.980   21.083   1.00  48.44        8
ATOM    21329   O10   RIF  R    1        44.756   92.982   22.212   1.00  48.44        8
ATOM    21330   O16   RIF  R    1        46.290   98.343   27.047   1.00  48.44        8
ATOM    21331   O17   RIF  R    1        51.732   95.163   26.318   1.00  48.44        8
END
```